

Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

I. A. Applicant/Recipient (Name, Address, City, State, Zip Code)

Name: Bay Area Air Quality Management District
Address: 375 Beale St.
Suite 600
City: San Francisco
State: CA: California Zip Code: 94105

B. DUNS No. 078781416

II. Is the applicant currently receiving EPA Assistance? ☒ Yes ☐ No

III. List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

DFEH Charge No. 854046-27346 (World); EEOC Charge No. 550-2021-01035 (Kabir)

IV. List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective actions taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

Environmental Protection Agency (EPA) Administrative Complaint No. 01R-21-R9 (Californians for Renewable Energy, Inc.)
BAAQMD has entered into a Voluntary Compliance Agreement with the EPA and is taking all corrective actions as set forth in the attached Preliminary Findings for EPA Complaint No. 01R-21-R9 at Section V. Recommendations for Achieving Voluntary Compliance.
These measures include, among other requirements, updating, translating, and making accessible to the public, persons with disabilities and persons with Limited English Proficiency (LEP) its Notice of Nondiscrimination, Grievance Procedure and Grievance Complaint form; Designating and identifying a Nondiscrimination Coordinator who will develop a discrimination complaint investigation manual, train staff in the grievance procedure processes, and train staff and contractors on non-discrimination policies and procedures; Ensuring meaningful access to programs and activities for persons with LEP; and Implementing steps for effective public participation that is accessible to all persons.

V. List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3))

Please see Section IV above and the attached Preliminary Findings for EPA Complaint No. 01R-21-R9.

VI. Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below.

☐ Yes ☒ No

a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).

☐ Yes ☐ No

b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.

- VII. Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its program or activities? (40 C.F.R 5.140 and 7.95) ☒ Yes ☐ No
- a. Do the methods of notice accommodate those with impaired vision or hearing? ☒ Yes ☐ No
- b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications? ☒ Yes ☐ No
- c. Does the notice identify a designated civil rights coordinator? ☒ Yes ☐ No
- VIII. Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. 7.85(a)) ☒ Yes ☐ No
- IX. Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166) ☒ Yes ☐ No
- X. If the applicant is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator.

Suma Peesapati; Environmental Justice and Community Engagement Officer; 375 Beale St., Suite 600, San Francisco, CA 94105; speesapati@baaqmd.gov; (415) 749-4967.

- XI. If the applicant is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet Address for, or a copy of, the procedures.

<https://www.baaqmd.gov/contact-us/non-discrimination>

For the Applicant/Recipient

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.

A. Signature of Authorized Official

Ranyee Chiang

B. Title of Authorized Official

Director

C. Date

03/25/2022

For the U.S. Environmental Protection Agency

I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.

A. *Signature of Authorized EPA Official

B. Title of Authorized Official

C. Date

*** See Instructions**

Instructions for EPA FORM 4700-4 (Rev. 06/2014)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973. The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification. * Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.

Project Narrative File(s)

* Mandatory Project Narrative File Filename:

Add Mandatory Project Narrative File

Delete Mandatory Project Narrative File

View Mandatory Project Narrative File

To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File

Delete Optional Project Narrative File

View Optional Project Narrative File

Other Attachment File(s)

* Mandatory Other Attachment Filename:

Add Mandatory Other Attachment

Delete Mandatory Other Attachment

View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

Delete Optional Other Attachment

View Optional Other Attachment



EPA KEY CONTACTS FORM

OMB Number: 2030-0020
Expiration Date: 06/30/2024

Authorized Representative: *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

Name:	Prefix:	<input type="text"/>	First Name:	<input type="text" value="Ranyee"/>	Middle Name:	<input type="text"/>
	Last Name:	<input type="text" value="Chiang"/>			Suffix:	<input type="text"/>
Title:	<input type="text" value="Director"/>					
Complete Address:						
	Street1:	<input type="text" value="375 Beale St"/>				
	Street2:	<input type="text" value="Suite 600"/>				
	City:	<input type="text" value="San Francisco"/>	State:	<input type="text" value="CA: California"/>		
	Zip / Postal Code:	<input type="text" value="94105-2097"/>	Country:	<input type="text" value="USA: UNITED STATES"/>		
Phone Number:	<input type="text" value="(415) 749-8621"/>		Fax Number:	<input type="text"/>		
E-mail Address:	<input type="text" value="rchiang@baaqmd.gov"/>					

Payee: *Individual authorized to accept payments.*

Name:	Prefix:	<input type="text"/>	First Name:	<input type="text" value="Stephanie"/>	Middle Name:	<input type="text"/>
	Last Name:	<input type="text" value="Osaze"/>			Suffix:	<input type="text"/>
Title:	<input type="text" value="Finance Director"/>					
Complete Address:						
	Street1:	<input type="text" value="375 Beale St"/>				
	Street2:	<input type="text" value="Suite 600"/>				
	City:	<input type="text" value="San Francisco"/>	State:	<input type="text" value="CA: California"/>		
	Zip / Postal Code:	<input type="text" value="94105"/>	Country:	<input type="text" value="USA: UNITED STATES"/>		
Phone Number:	<input type="text" value="(415) 749-4771"/>		Fax Number:	<input type="text"/>		
E-mail Address:	<input type="text" value="sosaze@baaqmd.gov"/>					

Administrative Contact: *Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc).*

Name:	Prefix:	<input type="text"/>	First Name:	<input type="text" value="Joseph"/>	Middle Name:	<input type="text"/>
	Last Name:	<input type="text" value="Lapka"/>			Suffix:	<input type="text"/>
Title:	<input type="text" value="Sr Air Quality Specialist"/>					
Complete Address:						
	Street1:	<input type="text" value="375 Beale St"/>				
	Street2:	<input type="text" value="Suite 600"/>				
	City:	<input type="text" value="San Francisco"/>	State:	<input type="text" value="CA: California"/>		
	Zip / Postal Code:	<input type="text" value="94105"/>	Country:	<input type="text" value="USA: UNITED STATES"/>		
Phone Number:	<input type="text" value="(415) 470-6937"/>		Fax Number:	<input type="text"/>		
E-mail Address:	<input type="text" value="jlapka@baaqmd.gov"/>					

EPA KEY CONTACTS FORM

Project Manager: *Individual responsible for the technical completion of the proposed work.*

Name: **Prefix:** **First Name:** **Middle Name:**
Last Name: **Suffix:**
Title:

Complete Address:

Street1:
Street2:
City: **State:**
Zip / Postal Code: **Country:**
Phone Number: **Fax Number:**
E-mail Address:

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2022

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Enhanced Air Quality Monitoring for Communities	66.034	\$	\$	\$ 298,114.00	\$ 1,385,474.00	\$ 1,683,588.00
2.						
3.						
4.						
5. Totals		\$	\$	\$ 298,114.00	\$ 1,385,474.00	\$ 1,683,588.00

Standard Form 424A (Rev. 7-97)
Prescribed by OMB (Circular A -102) Page 1

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	Enhanced Air Quality Monitoring for Communities				
a. Personnel	\$ 848,300.00	\$	\$	\$	\$ 848,300.00
b. Fringe Benefits	531,714.00				531,714.00
c. Travel	5,460.00				5,460.00
d. Equipment	0.00				0.00
e. Supplies	12,000.00				12,000.00
f. Contractual	0.00				0.00
g. Construction	0.00				0.00
h. Other	286,114.00				286,114.00
i. Total Direct Charges (sum of 6a-6h)	1,683,588.00				\$ 1,683,588.00
j. Indirect Charges	0.00				\$ 0.00
k. TOTALS (sum of 6i and 6j)	\$ 1,683,588.00	\$	\$	\$	\$ 1,683,588.00
7. Program Income	\$ 0.00	\$	\$	\$	\$ 0.00

Authorized for Local Reproduction

Standard Form 424A (Rev. 7-97)
Prescribed by OMB (Circular A -102) Page 1A

SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program		(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	Enhanced Air Quality Monitoring for Communities	\$ 1,385,474.00	\$ 0.00	\$ 0.00	\$ 1,385,474.00
9.					
10.					
11.					
12. TOTAL (sum of lines 8-11)		\$ 1,385,474.00	\$ 0.00	\$ 0.00	\$ 1,385,474.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 149,056.00	\$ 37,264.00	\$ 37,264.00	\$ 37,264.00	\$ 37,264.00
14. Non-Federal	\$ 692,738.00	\$ 173,184.00	\$ 173,184.00	\$ 173,185.00	\$ 173,185.00
15. TOTAL (sum of lines 13 and 14)	\$ 841,794.00	\$ 210,448.00	\$ 210,448.00	\$ 210,449.00	\$ 210,449.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program		FUTURE FUNDING PERIODS (YEARS)			
		(b)First	(c) Second	(d) Third	(e) Fourth
16.	Enhanced Air Quality Monitoring for Communities	\$ 841,794.00	\$ 561,196.00	\$ 280,598.00	\$
17.					
18.					
19.					
20. TOTAL (sum of lines 16 - 19)		\$ 841,794.00	\$ 561,196.00	\$ 280,598.00	\$

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges:	22. Indirect Charges:
23. Remarks: \$278,614 of Row 6h are funds passed through directly to Subgrantees; remaining \$7,500 of Row 6h funds would be provided to community participants	

Authorized for Local Reproduction

Standard Form 424A (Rev. 7- 97)
Prescribed by OMB (Circular A -102) Page 2

Application for Federal Assistance SF-424

*** 1. Type of Submission:**

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

*** 2. Type of Application:**

- ☒ New
☐ Continuation
☐ Revision

*** If Revision, select appropriate letter(s):**

*** Other (Specify):**

*** 3. Date Received:**

03/25/2022

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

*** a. Legal Name:**

Bay Area Air Quality Management District

*** b. Employer/Taxpayer Identification Number (EIN/TIN):**

94-1622746

*** c. Organizational DUNS:**

0787814160000

d. Address:

*** Street1:**

375 Beale St

Street2:

Suite 600

*** City:**

San Francisco

County/Parish:

*** State:**

CA: California

Province:

*** Country:**

USA: UNITED STATES

*** Zip / Postal Code:**

94105-2097

e. Organizational Unit:

Department Name:

Division Name:

Meteorology & Measurement

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Dr.

*** First Name:**

Ranyee

Middle Name:

*** Last Name:**

Chiang

Suffix:

Title:

Director

Organizational Affiliation:

*** Telephone Number:**

(415) 749-8621

Fax Number:

*** Email:**

rchiang@baaqmd.gov

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

E: Regional Organization

Type of Applicant 2: Select Applicant Type:

D: Special District Government

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.034

CFDA Title:

Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities
Relating to the Clean Air Act

* 12. Funding Opportunity Number:

EPA-OAR-OAQPS-22-01

* Title:

Enhanced Air Quality Monitoring for Communities

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Local-scale Community-led Monitoring in East Oakland

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:*** a. Applicant * b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:* a. Start Date: * b. End Date: **18. Estimated Funding (\$):**

* a. Federal	<input type="text" value="298,114.00"/>
* b. Applicant	<input type="text" value="1,385,474.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="1,683,588.00"/>

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☒ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☐ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title: * Telephone Number: Fax Number: * Email: * Signature of Authorized Representative: * Date Signed:



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

EXTERNAL CIVIL RIGHT COMPLIANCE OFFICE
OFFICE OF GENERAL COUNSEL

June 21, 2021

In Reply Refer to:

EPA Complaint No. 01R-21-R9

Jack P. Broadbent
Chief Executive Officer/Air Pollution Control Officer
Bay Area Air Quality Management District
375 Beale Street
Suite 600
San Francisco, CA 94105
jbbroadbent@baaqmd.gov

Re: Preliminary Findings for EPA Complaint No. 01R-21-R9

Dear Mr. Broadbent:

This letter is to notify you that, pursuant to 40 C.F.R. § 7.115(c)(1), the U.S. Environmental Protection Agency's (EPA) External Civil Rights Compliance Office (ECRCO) is issuing preliminary findings within the 180-day regulatory timeframe and closing, as of the date of this letter, EPA Administrative Complaint No. 01R-21-R9 ("Complaint") filed against the Bay Area Air Quality Management District ("BAAQMD") and received by the EPA on November 30, 2020.¹ The Complaint was filed by Californians for Renewable Energy, Inc. ("Complainant") and it alleges that BAAQMD discriminated against the historically Black community of the Bayview and Hunters Point neighborhoods, on the basis of race in violation of Title VI of the Civil Rights Act of 1964 ("Title VI"), and EPA's nondiscrimination regulation, at 40 C.F.R. Part 7.

Consistent with the requirement in 40 C.F.R. § 7.115(c)(1), ECRCO herein sets forth preliminary findings.² ECRCO has concluded its investigation as to whether BAAQMD discriminated against the residents of the historically Black neighborhoods of Bayview and Hunters Point on

¹ Complainant also filed this complaint against San Francisco Department of Public Health (SFPDH). ECRCO rejected the complaint against SFPDH due to lack of jurisdiction, as SFPDH is not an applicant for, or recipient of, EPA financial assistance.

² See Case Resolution Manual provision Section 5.1 (Jan. 2021) (https://www.epa.gov/sites/production/files/2021-01/documents/2021.1.5_final_case_resolution_manual_.pdf).

the basis of race in violation of Title VI of the Civil Rights Act of 1964 (Title VI) and EPA's nondiscrimination regulation found at 40 C.F.R. Part 7, in its response to an air quality complaint and Title VI complaint involving an alleged release of naturally occurring asbestos ("NOA") during soil disturbance work at Parcel A, formally part of the Hunters Point Naval Shipyard. As to this issue, ECRCO finds insufficient evidence to support a finding of discrimination on the basis of race in violation of Title VI.

ECRCO has also concluded its investigation as to whether BAAQMD has and is implementing the procedural safeguards required under 40 C.F.R. Parts 5 and 7 that all recipients of federal assistance must have in place to comply with their general nondiscrimination obligations, including specific policies and procedures to ensure meaningful access to BAAQMD's services, programs, and activities, for individuals with limited English proficiency (LEP) and individuals with disabilities and whether BAAQMD has a public participation policy and process that is consistent with Title VI and the other federal civil rights laws, and EPA's implementing regulation at 40 C.F.R. Parts 5 and 7. As to this second issue, ECRCO has determined that BAAQMD failed to comply with some of its obligations under the federal nondiscrimination laws and EPA's nondiscrimination regulation to have and implement a nondiscrimination program.

ECRCO Authority

ECRCO is responsible for enforcing several federal civil rights laws that prohibit discrimination on the bases of race, color, national origin (including limited-English proficiency), disability, sex, and age in programs or activities that receive federal financial assistance from the EPA. Pursuant to EPA's nondiscrimination regulation, ECRCO conducted a preliminary review of the Complaint to determine acceptance, rejection, or referral to the appropriate Federal agency. *See* 40 C.F.R. § 7.120(d)(1).

Complaint Background and Summary of Conclusions

On June 24, 2020 Complainant was contacted by community members who reported that on or around June 16, Lennar Construction ("Lennar"), a development company, created soil disturbances at Parcel A. Parcel A is a piece of land formerly part of the Hunters Point Navy Shipyard, in the Southeast corner of San Francisco, California.³ On the same day, Complainant contacted Jeremy Kimball, a Supervising Air Quality Specialist at BAAQMD to discuss the soil disturbance. Mr. Kimball directed Complainant to BAAQMD's air pollution complaint link.⁴ On June 24, 2020, Complainant filed a complaint using that link. In this complaint, Complainant described his contact with a BAAQMD employee earlier that day and stated, "[t]his is a complaint under Title VI of the Civil Rights Act for BAAQMD's failure to enforce compliance regarding the release of NOA."⁵

³ EPA Complaint No. 01R-21-R9 against BAAQMD, filed with ECRCO (November 25, 2020) [hereinafter Complaint].

⁴ Complaint, Exhibit 2: Email from Complainant to BAAQMD, p. 29-30, *see also* BAAQMD's Air Pollution Complaint Link, available at <https://permits.baaqmd.gov/PublicForms/ComplaintWizardSelection>.

⁵ Complaint, Exhibit 10: Air Quality and Title VI Complaint filed by Complainant with BAAQMD, p. 101-104. (November 25, 2020).

BAAQMD Senior Inspector Simon Winer conducted the investigation of the complaint. According to BAAQMD's official Complaint Report, dated June 30, 2020, Mr. Winer visited Parcel A on June 25, 2020 and reported no activity.⁶ As a result, the complaint allegations of dust disturbance could not be confirmed.⁷ BAAQMD's Complaint Report notes that Mr. Winer contacted Complainant on June 25, 2020 after his visit to Parcel A. The Complaint Report notes that the Complainant specifically requested evidence of BAAQMD's compliance with the Asbestos Dust Mitigation and Fugitive Dust Control Plan ("ADMP").⁸ On July 1, 2020, Mr. Winer followed up with Michael Hochstoecker of Lennar to discuss.⁹

Complainant contacted Mr. Winer again on September 14, 2020 asking him to visit Parcel A to ensure compliance with the "mitigation and monitoring program" that BAAQMD has in place and to check whether there were ongoing soil disturbance activities.¹⁰ On September 15, 2020 Mr. Winer responded to Complainant via phone and left a voicemail. On the same day, Complainant followed up with Mr. Winer via email asking to verify the message. In his email to Mr. Winer, Complainant wrote "You confirmed that there's soil disturbance activities going on at the shipyard, correct? You can confirm that the adopted mitigation and monitoring program is being followed, correct?" Within the hour, Mr. Winer followed up via email stating that he visits Parcel A "a few times a week."¹¹ During that period of time, Winer reported that Lennar had been working with an excavator sporadically and "they have active water truck support if there is any use of the machinery [that could potentially cause dust]".¹²

According to the Complaint filed with ECRCO, the Complainant never raised Title VI issues with Mr. Winer after the investigation of his complaint with BAAQMD began.¹³ BAAQMD confirmed that BAAQMD's Non-Discrimination Coordinator was never notified about receipt of the Complainant's Title VI complaint; the Title VI complaint was not processed through the grievance procedure BAAQMD established to process complaints of discrimination in BAAQMD's programs or activities; and, as a result, the Complainant never received a determination from BAAQMD about his June 24, 2020 Title VI claim.¹⁴

⁶ Complaint, Exhibit 10-11 BAAQMD Official Complaint Report, p. 106; and *see also* Complaint Exhibit 5: Email exchanges between Complainant and BAAQMD, p. 36.

⁷ Complaint, Exhibit 10-11 BAAQMD Official Complaint Report, p. 106.

⁸ Asbestos Dust Mitigation and Fugitive Control Plan (ADMP), the ADMP was prepared pursuant to California Code of Regulations Title 17 (17 CCR) Section 93105, the ATCM, for Construction, Grading, Quarrying, and Surface Mining Operations. It also incorporates requirements from Bay Area Air Quality Management District (BAAQMD) Regulation 2, Permits and BAAQMD Regulation 6, Particulate Matter and Visible Emissions [hereinafter ADMP].

⁹ Complaint, Exhibit 10-11 BAAQMD Official Complaint Report, p. 106.

¹⁰ Complaint, Exhibit 5: Email exchanges between Complainant and BAAQMD, p. 36.

¹¹ *Id.*

¹² *Id.*

¹³ On December 9, 2020, ECRCO interviewed Complainant. During the interview, Complainant confirmed that the Complaint contained a full record of his correspondence with BAAQMD [hereinafter Complainant Interview].

¹⁴ On January 28, 2021, ECRCO interviewed BAAQMD employees Brian Bunker, John Chiladakis, and Todd Gonsalves. Mr. Chiladakis confirmed that the complaint was not processed through the nondiscrimination grievance procedure.

On November 25, 2020, the Complainant filed a Title VI Complaint against BAAQMD with EPA's ECRCO. The Complaint states that in "failing to identify possible risks of exposure to toxins, including asbestos and radionuclides" BAAQMD and SFDPH "failed to mitigate and monitor the surrounding community's exposure to dust disturbances in Parcel A thereby subjecting persons in Hunters Point San Francisco California ZIP Code 94124 to discrimination based on race and color."¹⁵ The Complaint further states that the "exposure of radiation and toxins from Parcel A raises the risk of harm, injuries, and illnesses to the surrounding community".¹⁶ The Complaint requests that BAAQMD come into "voluntary compliance" with their monitoring of Parcel A.¹⁷ ECRCO contacted Complainant on December 9, 2020 to clarify the allegations and information provided in the complaint. As a result of that conversation, on December 22, 2020 ECRCO accepted the Complaint for investigation and issued notice to both the Recipient and the Complainant that ECRCO would investigate the following issues:

1. Whether BAAQMD discriminated against the residents of the historically Black neighborhood of Hunters Point¹⁸ on the basis of race in violation of Title VI of the Civil Rights Act of 1964 (Title VI) and EPA's nondiscrimination regulation found at 40 C.F.R. Part 7, in its response to an air quality complaint and Title VI complaint involving an alleged release of naturally occurring asbestos during excavation work at Hunters Point Naval Shipyard¹⁹ Parcel A²⁰.
2. Whether BAAQMD has and is implementing the procedural safeguards required under 40 C.F.R. Parts 5 and 7 that all recipients of federal assistance must have in place to comply with their general nondiscrimination obligations, including specific policies and procedures to ensure meaningful access to BAAQMD's services, programs, and activities, for individuals with limited English proficiency (LEP) and individuals with disabilities, and whether BAAQMD has a public participation policy and process that is consistent with Title VI and the other federal civil rights laws, and EPA's implementing regulation at 40 C.F.R. Parts 5 and 7²¹

¹⁵ Complaint, p. 100.

¹⁶ Complaint, p. 6.

¹⁷ *Id.*

¹⁸ ECRCO analyzed the Bayview and Hunters Point neighborhoods.

¹⁹ Parcel A was part of the Navy's former shipyard. EPA has removed Parcel A from being part of the Hunters Point Naval Shipyard Superfund site on the National Priorities List of contaminated sites (or Superfund list).

²⁰ Title VI of the Civil Rights Act, 42 U.S.C. 2000(d) *et seq.* (prohibiting discrimination on the basis of race, color or national origin); 40 C.F.R. Parts 5 and 7. *See also* U.S. EPA, Chapter 1 of the U.S. EPA's External Civil Rights Compliance Office Compliance Toolkit: Chapter 1, transmittal letter, and FAQs, at https://www.epa.gov/sites/production/files/2020-02/documents/toolkit_ecrco_chapter_1-letter-faqs_2017.01.18.pdf. (2017).

²¹ *See* Title VI, 42 U.S.C. 2000(d) *et seq.*; Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794; *Lau v. Nichols*, 414 U.S. 563, 568-69 (1974) (finding that the government properly required language services to be provided under a recipient's Title VI obligations not to discriminate based on national origin); 40 C.F.R. § 7.35(a). *See also* U.S. EPA, Guidance to Environmental Protection Agency Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons. 69 FR 35602 (June 25, 2004) (available at https://www.epa.gov/sites/production/files/2020-02/documents/title_vi_lep_guidance_for_epa_recipients_2004.06.25.pdf); U.S. EPA, Title VI Public Involvement Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs, 71 FR 14207 (March

ECRCO has concluded its investigation with respect to both issues.²² With respect to the first issue, ECRCO has determined that there is insufficient evidence to support a finding of discrimination by BAAQMD. ECRCO specifically looked at whether BAAQMD subjected the predominantly Black residents of the Bayview Hunters Point community to disparate treatment and/or disparate impact in its response to the Complainant's June 24, 2020 air quality complaint.

In reaching this decision, ECRCO reviewed the Hunters Point Shipyard Parcel A Asbestos Dust Mitigation and Fugitive Dust Control Plan ("ADMP")²³; BAAQMD Regulations²⁴; California laws;²⁵ BAAQMD's publicly available documents;²⁶ fact sheets²⁷ and surveys²⁸ pertaining to Parcel A. ECRCO further examined whether BAAQMD followed its own procedures and state regulations in its response to the June 24, 2020 Complaint.

ECRCO also conducted interviews with the Complainant by telephone²⁹ and examined evidence and information submitted by the Complainant, including Complainant's written exchanges with BAAQMD and BAAQMD's response to his June 24, 2020 Complaint.³⁰ In addition, ECRCO interviewed BAAQMD legal counsel and staff and examined evidence and information submitted by BAAQMD in its response to the Complaint. Finally, ECRCO consulted with EPA Region 9 staff regarding environmental issues raised in the complaint (e.g., air quality monitoring, previous Superfund work at Parcel A, and information about NOA).

With respect to the second issue, ECRCO has determined that the preponderance of the evidence supports a conclusion that BAAQMD failed to comply with some of its longstanding obligations under the federal nondiscrimination laws and EPA's nondiscrimination regulation to have and

21, 2006) (available at https://www.epa.gov/sites/production/files/2020-02/documents/title_vi_public_involvement_guidance_for_epa_recipients_2006.03.21.pdf); U.S. EPA, Procedural Safeguards Checklist for Recipients, at https://www.epa.gov/sites/production/files/2020-02/documents/procedural_safeguards_checklist_for_recipients_2020.01.pdf (rev. Jan. 2020) (which provides a more detailed explanation of nondiscrimination obligations and best practices); U.S. EPA, Disability Nondiscrimination Plan Sample, at https://www.epa.gov/sites/production/files/2020-02/documents/disability_nondiscrimination_plan_sample_for_recipients_2020.01.pdf. (2017).

²² Acceptance Letter, EPA Complaint No. 01R-21-R9.

²³ Hunters Point Shipyard Parcel A Asbestos Dust Mitigation and Fugitive Dust Control Plan, available at https://www.sfdph.org/dph/files/EHSdocs/ehsHuntersPointdoc/Article31/HPS_Dust_Control_Plan_2015.pdf [hereinafter ADMP].

²⁴ Bay Area Air Quality Management District (BAAQMD) Regulation 2, BAAQMD Regulation 6, Particulate Matter and Visible Emissions, BAAQMD Regulation 11.

²⁵ California Code of Regulations (CCR) Title 17, Section 93105, the Asbestos Airborne Toxic Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations [hereinafter ATCM].

²⁶ Naval Facilities Engineering Command, Final Environmental Impact Statement for the Disposal and Reuse of Hunters Point Shipyard, available at: https://www.bracpmo.navy.mil/content/dam/bracpmo/california/former_naval_shipyard_hunters_point/pdfs/all_documents/environmental_documents/nepa/hps_200003_fseisvolume1.pdf.

²⁷ Environmental Protection Agency, Bayview Hunters Point's Parcel A is Suitable for Residential Use, United States Environmental Protection Agency Fact Sheet, November 2020 (November 2020), available at <https://semsub.epa.gov/work/09/100022040.pdf> [hereinafter Parcel A Fact Sheet].

²⁸ Bayview-Hunters Point: Area B Survey (2010), available at: https://bvoh.org/wp-content/uploads/2017/07/BVHP_Historical-Context.pdf [hereinafter Area B Survey].

²⁹ ECRCO interview with Complainant, *supra* note 13.

³⁰ Complaint.

implement a nondiscrimination program, including: procedural safeguards required under 40 C.F.R. Parts 5 and 7; and policies and procedures for ensuring meaningful access to BAAQMD's services, programs, and activities for individuals with LEP and individuals with disabilities.

ECRCO's investigation included interviews with the Complainant, to obtain information about his interactions with BAAQMD regarding his documented allegations and to provide information to the Complainant on the investigation process.³¹ ECRCO met with BAAQMD legal counsel and staff on January 28, 2021 to provide information about the investigation, the complaint resolution processes, and to provide a copy of ECRCO's Procedural Safeguards Checklist.³² During this conversation, ECRCO also offered to engage in informal resolution discussions. BAAQMD informed ECRCO of its decision to decline informal resolution in its response to the Complaint via email on February 17, 2021.³³

ECRCO conducted a review of BAAQMD's website to investigate BAAQMD's implemented nondiscrimination program and procedures. ECRCO met with BAAQMD again on March 10, 2021 to review and discuss BAAQMD's nondiscrimination program in light of ECRCO's Procedural Safeguards Checklist and to provide BAAQMD with guidance on how to remedy any areas that appeared to be in noncompliance with federal nondiscrimination laws and EPA's nondiscrimination regulation.³⁴ Finally, on April 26, 2021 ECRCO met with Veronica Eady, BAAQMD's Senior Deputy Executive Officer of Policy & Equity, John Chiladakis, BAAQMD's Acting Nondiscrimination Coordinator, Todd Gonsalves, BAAQMD's Legal Counsel, and Kristen Law, BAAQMD's Manager of Community Engagement and Policy.³⁵ ECRCO again discussed observed deficiencies and provided technical assistance to BAAQMD regarding its nondiscrimination program. BAAQMD acknowledged ECRCO's concerns and discussed potential future initiatives and actions that might address some of ECRCO's concerns, but again declined to engage in the informal resolution agreement process. At that time and again on May 10th and 25th 2021, ECRCO requested documentation regarding any such plans, initiatives, and actions.³⁶ To date, BAAQMD has not responded to any of these specific requests.

Background on the Bayview Hunters Point Community

The Bayview and Hunters Point neighborhoods are a part of one of San Francisco's oldest and most historic residential and industrial districts.³⁷ The Bayview Hunters Point Community is located within zip codes 94124 in the City of San Francisco. The Bayview Hunters Point Community is a roughly 2,528-acre collection of multiple neighborhoods located on the southeast corner of the San Francisco, including Hunters Point, India Basin, Bayview, Silver Terrace, and Bret Harte, as well as extensive industrial districts in the Islais Creek Estuary (Oakinba and Northern Gateway) and South Basin areas.³⁸ The Bayview Hunters Point

³¹ ECRCO interview with Complainant, *supra* note 13.

³² Procedural Safeguards Checklist for Recipients, Federal Non-Discrimination Obligations and Best Practices (Revised January 2020). (https://www.epa.gov/sites/production/files/2020-02/documents/procedural_safeguards_checklist_for_recipients_2020.01.pdf).

³³ Email from BAAQMD to ECRCO, February 17, 2021.

³⁴ ECRCO conference call with BAAQMD, March 10, 2021.

³⁵ ECRCO conference call with BAAQMD, April 26, 2021.

³⁶ ECRCO Email to BAAQMD, May 10, 2021 and May 25, 2021.

³⁷ Area B Survey, p. 3.

³⁸ *Id.*

Community boundaries are generally understood to be Cesar Chavez Boulevard to the north, San Francisco Bay to the East, the Bayshore Freeway (U.S. Highway 101) to the west, and Candlestick Hill to the south.³⁹

As part of its investigation, ECRCO reviewed demographic information for the Bayview Hunters Point Community. The Bayview Hunters Point Community has a total population of approximately 35,437. In zip code 94124, the population is approximately: 12% White, 27% Black; 25% Hispanic; and 36% Asian.

With respect to persons with limited English proficiency, the Bayview Hunters Point Community has a total of 10,312 persons 5 years or older who speak English less than very well. In the Bayview and Hunters Point neighborhoods 30.6% of the total population is LEP. Air District is tasked with regulating stationary sources of air pollution in the nine counties that surround San Francisco Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma counties. Of the total population in these nine counties, the most prominent LEP languages are Spanish (526,619 LEP persons or 7.5% of the total population), Chinese (284,706 LEP persons or 4.1%), Vietnamese (103,246 LEP persons or 1.5%), and Tagalog (86,678 LEP persons or 1.2%).⁴⁰

Currently there are no reported major source air permits, intermediate synthetic minor source air permits, and permitted construction air emission sources (any other relevant pollution sources) located within the Bayview Hunters Point Community.⁴¹

Background of Hunters Point Navy Shipyard Parcel A

The former Hunters Point Navy Shipyard is in the Bayview and Hunters Point neighborhoods of San Francisco.⁴² The shipyard operated from 1939 to 1974. From 1946 to 1969, the Naval Radiological Defense Laboratory and its predecessors operated there.⁴³ The Navy's activities contaminated shipyard soil and groundwater, as well as surface water and sediment in the San

³⁹ *Id.*

⁴⁰ U.S. Census Bureau, American Community Survey data (2014-2019 estimates).

⁴¹ Permit Compliance System (PCS) and Integrated Compliance Information System (ICIS) databases in Envirofacts regarding facilities registered with the federal enforcement and compliance (FE&C). *See* <https://www.epa.gov/enviro/pcs-icis-search>

⁴² EPA, Bayview Hunters Point's Parcel A, Fact Sheet (November 2020) at <https://semspub.epa.gov/work/09/100022040.pdf>.

⁴³ Bayview Hunters Point's Parcel A is Suitable for Residential Use, United States Environmental Protection Agency Fact Sheet, November 2020, states, "In the Navy's 2004 Historical Radiological Assessment (HRA), the Navy presents available historical information regarding radiological activities and related Navy investigations. Preparing the HRA involved reviewing historical records, maps and photographs; reviewing previous work performed; and interviewing former Navy shipyard workers. At Parcel A, the only historical radiological concerns the Navy identified were Buildings 322, 816, and 821. Building 322 was identified because the Naval Radiological Defense Laboratory used this building before the Navy had relocated it from another area on the shipyard. Buildings 816 and 821 were identified because the Naval Radiological Defense Laboratory operated a high-voltage accelerator laboratory and x-ray facility inside these buildings. As summarized in the HRA, the Navy investigated and cleared all three buildings for unrestricted use, and it demolished and removed Building 322."

Francisco Bay.⁴⁴ Historically, the Navy used Parcel A for residential and administrative purposes, including offices and an officers' club.⁴⁵

In the early 1990s, the Navy performed routine cleanup activities to prepare Parcel A for transfer to the Office of Community Investment and Infrastructure (OCII). The Navy and EPA determined no further action was needed at Parcel A to protect public health. As such, in 1999, EPA removed Parcel A from being part of the Hunters Point Naval Shipyard Superfund site on the National Priorities List of contaminated sites (or Superfund list). Before the Navy transferred the property to the OCII⁴⁶ in 2004, the Navy, EPA, and the state agreed the land was suitable for residential use. Parcel A's redevelopment began in 2006. Developers removed all Navy-era utilities, which included sewer lines and maintenance holes.

In 2019, the California Department of Public Health ("CDPH") conducted a radiological health and safety surface scan of Parcel A. CDPH also collected radiological dust wipe samples in over 70 residential homes and studios in Parcel A. According to CDPH, the goal of the scan was to ensure residents are not exposed to unsafe levels of radiation. The scan concluded in the summer of 2019, and CDPH stated that there are no radiological health concerns throughout Parcel A.⁴⁷

I. Preliminary Findings for Issue Number One

Whether BAAQMD discriminated against the residents of the historically Black neighborhood of Hunters Point⁴⁸ on the basis of race in violation of Title VI of the Civil Rights Act of 1964 (Title VI) and EPA's nondiscrimination regulation found at 40 C.F.R. Part 7, in its response to an air quality complaint and Title VI complaint⁴⁹ involving an alleged release of naturally occurring asbestos during excavation work at Hunters Point Naval Shipyard⁵⁰ Parcel A⁵¹.

Applicable Legal Standards

EPA's investigation was conducted under the authority of the federal civil rights laws, including Title VI of the Civil Rights Act of 1964, and EPA's nondiscrimination regulation (40 C.F.R. Parts 5 and 7) and consistent with EPA's Case Resolution Manual.⁵²

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ The Office of Community Investment and Infrastructure is a state-authorized local entity serving as the successor to the former San Francisco Redevelopment Agency, <https://sfocii.org>.

⁴⁷ Parcel A Fact Sheet.

⁴⁸ ECRCO analyzed the Bayview and Hunters Point neighborhoods.

⁴⁹ Note: ECRCO's investigation of BAAQMD's response to Complainant's Title VI complaint filed with BAAQMD June 24, 2020 will be evaluated in Section II of this Preliminary Findings letter.

⁵⁰ Parcel A was part of the Navy's former shipyard. EPA has removed Parcel A from being part of the Hunters Point Naval Shipyard Superfund site on the National Priorities List of contaminated sites (or Superfund list).

⁵¹ Title VI of the Civil Rights Act, 42 U.S.C. 2000(d) *et seq.* (prohibiting discrimination on the basis of race, color or national origin); 40 C.F.R. Parts 5 and 7. *See also* U.S. EPA, Chapter 1 of the U.S. EPA's External Civil Rights Compliance Office Compliance Toolkit: Chapter 1, transmittal letter, and FAQs, at https://www.epa.gov/sites/production/files/2020-02/documents/toolkit_ecrco_chapter_1-letter-faqs_2017.01.18.pdf. (2017).

⁵² Case Resolution Manual (Jan. 2021) (https://www.epa.gov/sites/production/files/2021-01/documents/2021.1.5_final_case_resolution_manual_.pdf).

Federal civil rights laws and EPA's implementing regulation prohibit recipients from intentionally discriminating in their programs and activities based on race, color or national origin, disability, sex or age. This is referred to as *disparate treatment*.⁵³ The regulation, at 40 C.F.R. § 7.35(a), states that "a recipient shall not on the basis of race, color, or national origin provide a person any service, aid, or other benefit that is different, or is provided differently from that provided to others under the program or activity."

In investigating intentional discrimination under Title VI, EPA must determine whether a recipient intentionally treated individuals differently or otherwise knowingly caused them harm because of their race, color, or national origin. Intentional discrimination requires a showing that a "challenged action was motivated by an intent to discriminate."⁵⁴ Evidence of "bad faith, ill will or any evil motive on the part of the [recipient]" is not necessary.⁵⁵ Evidence in a disparate treatment case must generally show that the recipient was not only aware of the complainant's protected status, but that the recipient acted, at least in part, because of the complainant's protected status.⁵⁶ EPA will evaluate the "totality of the relevant facts" to determine whether intentional discrimination has occurred.⁵⁷ Direct proof of discriminatory motive is often unavailable. However, EPA will consider both direct and circumstantial evidence of discriminatory intent.

EPA's regulation also prohibits disparate impact (or discriminatory effect) discrimination.⁵⁸ The regulation, at 40 C.F.R. § 7.35(b), states in relevant part, that "[a] recipient shall not use criteria or methods of administering its program or activity which have the effect of subjecting individuals to discrimination because of their race, color, or national origin."

In a disparate impact analysis, EPA must determine whether the recipient used a facially neutral policy or practice that had a sufficiently adverse (harmful) and disproportionate effect based on race, color, or national origin. This is referred to as the *prima facie* case. To establish an adverse disparate impact, EPA must:

- (1) identify the specific policy or practice at issue;
- (2) establish adversity/harm;⁵⁹

⁵³ 40 C.F.R. § 7.35(a); *see, also, Alexander v. Choate*, 469 U.S. 287, 292-293 (1985); *Guardians Ass'n. v. Civil Serv. Comm'n.* 463 U.S. 582, 593 (1983).

⁵⁴ *Elston v. Talladega Cty. Bd. of Educ.*, 997 F.2d 1394, 1406 (11th Cir. 1993).

⁵⁵ *Williams v. City of Dothan*, 745 F.2d 1406, 1414 (11th Cir. 1984).

⁵⁶ *Doe ex rel. Doe v. Lower Merion Sch. Dist.*, 665 F.3d 524, 548 (3d Cir. 2011).

⁵⁷ *See Washington v. Davis*, 426 U.S. 229, 242 (1976).

⁵⁸ 40 C.F.R. § 7.35(b); *see, also, Guardians*, 463 U.S. at 593 (concluding that Title VI reaches unintentional, disparate impact as well as intentional discrimination); *Alexander v. Choate*, 469 U.S. at 293 (confirming that, under *Guardians*, agencies enforcing Title VI can address disparate impact discrimination through their regulations). Many subsequent cases have cited *Guardians* in recognizing the validity of Title VI disparate impact claims. *See, e.g. Villanueva v. Carere*, 85 F.3d 481, 486 (10th Cir. 1996); *New York Urban League v. New York*, 71 F.3d 1031, 1036 (2d Cir. 1995); *City of Chicago v. Lindley*, 66 F.3d 819, 827-28 (7th Cir. 1995) (internal citations omitted); *David K. v. Lane*, 839 F.2d 1265, 1274 (7th Cir. 1988); *Georgia State Conference of Branches of NAACP v. Georgia*, 775 F.2d 1403, 1417 (11th Cir. 1985) (internal citations omitted); *Larry P. v. Riles*, 793 F.2d 969, 981-982 (9th Cir. 1984); *see also* U.S. EPA's External Civil Rights Compliance Office Toolkit, p. 8 (Jan. 18, 2017). https://www.epa.gov/sites/production/files/2017-01/documents/toolkit-chapter1-transmittal_letter-faqs.pdf.

⁵⁹ Adversity exists if a fact specific inquiry determines that the nature, size, or likelihood of the impact is sufficient to make it an actionable harm. U.S. EPA's External Civil Rights Compliance Office Toolkit, at 18, fn. 41.

- (3) establish disparity;⁶⁰ and
- (4) establish causation.⁶¹

The focus here is on the consequences of the recipient's policies or decisions, rather than the recipient's intent.⁶² The neutral policy or decision at issue need not be limited to one that a recipient formalizes in writing, but also could be one that is understood as "standard operating procedure" by recipient's employees. Similarly, the neutral practice need not be affirmatively undertaken, but in some instances could be the failure to take action, or to adopt an important policy.⁶³

If the evidence establishes a prima facie case of adverse disparate impact, as discussed above, EPA must then determine whether the recipient has articulated a "substantial legitimate justification" for the challenged policy or practice.⁶⁴ "Substantial legitimate justification" in a disparate impact case is similar to the Title VII employment concept of "business necessity," which in that context requires a showing that the policy or practice in question is demonstrably related to a significant, legitimate employment goal.⁶⁵ The analysis requires balancing recipient's interests in implementing their policies with the substantial public interest in preventing discrimination.⁶⁶

If a recipient shows a substantial legitimate justification for its policy or decision, EPA must also determine whether there are any comparably effective alternative practices that would result in less adverse impact. Thus, even if a recipient demonstrates a substantial legitimate justification, the challenged policy or decision will nevertheless violate federal civil rights laws if the evidence shows that less discriminatory alternatives exist.⁶⁷

⁶⁰ In analyzing disparity, EPA analyzes whether a disproportionate share of the adversity/harm is borne by individuals based on their race, color, national origin, age, disability or sex. A general measure of disparity compares the proportion of persons in the protected class who are adversely affected by the challenged policy or decision and the proportion of persons not in the protected class who are adversely affected. *See Tsombanidis v. W. Haven Fire Dep't*, 352 F.3d 565, 576-77 (2d Cir. 2003) (internal citations omitted).

⁶¹ *See N.Y.C. Envtl. Justice All. v. Giuliani*, 214 F.3d 65, 69 (2d Cir. 2000) (plaintiffs must "allege a causal connection between a facially neutral policy and a disproportionate and adverse impact on minorities").

⁶² *Lau v. Nichols*, 414 U.S. 563, 568 (1974).

⁶³ *See, e.g., Maricopa Cty.*, 915 F. Supp. 2d 1073, 1079 (D. Ariz. 2012) (disparate impact violation based on national origin properly alleged where recipient "failed to develop and implement policies and practices to ensure [limited English proficient] Latino inmates have equal access to jail services" and discriminatory conduct of detention officers was facilitated by "broad, unfettered discretion and lack of training and oversight" resulting in denial of access to important services).

⁶⁴ *Georgia State Conf.*, 775 F.2d at 1417. *See also, Patterson v. McLean Credit Union*, 491 U.S. 164, 186-87 (noting the framework for proof developed in civil rights cases), *citing, Texas Dept. of Community Affairs v. Burdine*, 450 U.S. 248, 254 (1981); *McDonnell Douglas Corp. v. Green*, 411 U.S. 792, 802 (1973).

⁶⁵ *Wards Cove Packing Inc. v. Antonio*, 490 U.S. 642, 659-660 (1989); *Griggs v. Duke Power Co.*, 401 U.S. 424, 432 (1971). The concept of "business necessity" does not transfer exactly to the Title VI context because "business necessity" does not cover the full scope of recipient practices that Title VI covers, which applies far more broadly to many types of public and non-profit entities. *See Texas Dept. of Hous. and Cmty. Affairs v. Inclusive Communities Project*, 135 S. Ct. 2507, 2522-24 (2015) (recognizing the limitations on extension of the business necessity concept to Fair Housing Act complaints).

⁶⁶ *See, Department of Justice Title VI Legal Manual, Section VII: Proving Discrimination – Disparate Impact, §C.2, <https://www.justice.gov/crt/fcs/T6Manual7#U>.*

⁶⁷ *Elston v. Talladega Cty. Bd. Of Educ.*, 997 F.2d 1394, 1407 (11th Cir. 1993). *See U.S. EPA's External Civil Rights Compliance Office Toolkit*, p. 9-10.

Factual and Regulatory Background

Naturally Occurring Asbestos (NOA) and Health Effects

The term asbestos can be used for several types of naturally occurring fibrous minerals. NOA is present in many parts of California. When rock containing NOA is broken or crushed, asbestos fibers may be released and become airborne.⁶⁸ NOA emissions pose a significant risk to human health.⁶⁹ Exposure to NOA increases the risk of a person developing health issues that include, lung disease, lung cancer, mesothelioma, and asbestosis.⁷⁰

The California Air Resources Board and the Airborne Toxic Control Measures

The California Air Resources Board (“CARB”) identified asbestos as a toxic air contaminant (“TAC”) in 1986 and the EPA has previously identified asbestos as a hazardous air pollutant in 1971.⁷¹ Subsequently, CARB adopted two Airborne Toxic Control Measures to potentially address some health concerns related to the exposure of asbestos and minimize the release of asbestos fibers when conducting activities that involve the handling of NOA.⁷² One of the regulations relevant to the subject complaint is the California Code of Regulations Title 17 Section 93105, Airborne Toxic Control Measures for Construction, Grading, Quarrying, and Surface Mining Operations (“ATCM”), which was adopted in 2001.⁷³ This regulation addresses minimizing the placement of asbestos-containing materials on unpaved surfaces and establish work practices aimed at minimizing asbestos emissions from activities where naturally-occurring asbestos (“NOA”) is found or likely to be found.⁷⁴

The Parcel A Asbestos Dust Mitigation and Fugitive Dust Control Plan (ADMP)

Pursuant to the ATCM, development corporations conducting any ground disturbing activities on sites that may contain NOA soil and serpentine rock, are required to submit an Asbestos Dust Mitigation Plan to the corresponding air district for approval prior to any grading activities.⁷⁵ An ADMP must specify dust mitigation practices which are sufficient to ensure that no equipment or operation emits dust that is visible crossing the property line.⁷⁶ Accordingly, Lennar submitted its Asbestos Dust Mitigation Plan⁷⁷ (“ADMP”) for BAAQMD approval in September 2014, and

⁶⁸ California Air Resource Board, available at: <https://ww2.arb.ca.gov/our-work/programs/naturally-occurring-asbestos/about> [hereinafter CARB].

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ CARB and see also <https://www.epa.gov/asbestos/overview-asbestos-national-emission-standards-hazardous-air-pollutants-neshap#:~:text=Asbestos%20was%20one%20of%20the,CFR%20Part%2061%2C%20Subpart%20M>.

⁷² CARB.

⁷³ ATCM, 17 CCR Section 93105, subdivision (i)(12), defines Construction, Grading, Quarrying, and Surface Mining Operations as: “any surface disturbance conducted with powered equipment or any related activity, including, but not limit to, all surface and subsurface cuts and filles, excavation, trenching, stockpiling, bulldozing, and landfills” [hereinafter ATCM].

⁷⁴ *Id.*

⁷⁵ ATCM, Section 93105 (e)(3).

⁷⁶ *Id.*

⁷⁷ The “fugitive dust” portion of the ADMP is approved by the San Francisco Department of Public Health.

was subsequently approved by BAAQMD on May 20, 2015.⁷⁸ The ADMP states that it “identifies the Best Management Practices (BMPs)” and is drafted and implemented to reduce air particulate emissions resulting from soil disturbance or excavation associated with grading, utility work, construction of site infrastructure, and foundation construction.⁷⁹ This plan and its mitigation measures aims for a goal of “no visible dust” emissions from Parcel A and outlines the BMPs required to meet that goal.⁸⁰ Lennar is responsible for implementation and mitigation of potential dust resulting from soil disturbances on Parcel A.

Air Monitoring

Under the ATCM, air monitoring for asbestos is only required if the district Air Pollution Control Officer (“APCO”) uses their discretion to require it in an ADMP.⁸¹ If the APCO requires air monitoring, the air monitoring components of the ADMP must specify the: 1) type of air sampling devices, 2) the siting of the air sampling devices, 3) the sampling duration and frequency, and (4) the analytical method.⁸² Here, the APCO is BAAQMD’s Executive Director, Jack P. Broadbent. Mr. Broadbent used his discretionary authority as APCO to require air monitoring components be included in the Lennar Corporation’s ADMP. The Air Monitoring section of the ADMP describes the air monitoring protocol to be used at Parcel A.⁸³ The air monitoring is broken into two components, 1) Airborne asbestos dust monitoring in accordance with the ATCM; and 2) Fugitive dust (particulate) monitoring in accordance with San Francisco Health Code Article 31.⁸⁴ BAAQMD has regulatory authority for compliance of the former, and San Francisco Department of Public Health implements the latter. Both types of monitoring are required at the start of the project. Here, the airborne asbestos monitoring site is identified as NOA-0023.⁸⁵ As part of the ADMP, five (5) stationary air sampling locations were installed at the NOA-0023 Site.⁸⁶ The ADMP also requires a periodic independent third-party inspection of the NOA-0023 Site and Parcel A during construction.⁸⁷ As of February 18, 2020, Albion Partners is the independent third-party inspector responsible for monitoring at the NOA-0023 site at Parcel A.⁸⁸ The ATCM allows for decrease or possible cessation of airborne asbestos monitoring only after consultation with and approval by BAAQMD. Airborne asbestos dust monitoring may also cease when the project ceases disturbing soil, but only with notification and approval of BAAQMD.⁸⁹

Airborne asbestos monitoring is not required when the construction site on Parcel A is shut down and no work is being conducted, including no vehicles driven on unpaved surfaces. Generally,

⁷⁸ ADMP (Appendix A).

⁷⁹ ADMP, p. 2.

⁸⁰ ADMP, Section 2.3, p. 11, states: “The dust control measures set forth in this plan are intended to achieve a goal of no visible dust emissions associated with soil disturbance, movement, or excavation of soil, to the extent required [by applicable regulations].”

⁸¹ ATCM, Section 93105 (H)

⁸² *Id.*

⁸³ ADMP, Section 8, Air Monitoring, p. 27.

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ ADMP, and *see also* Complaint p. 125.

⁸⁷ ADMP, Section 8.3, p. 30.

⁸⁸ Complaint Page 120

⁸⁹ ADMP, p. 21.

the construction site is shut down on weekends and holidays, therefore no monitoring is required, unless Lennar notifies BAAQMD otherwise.⁹⁰

The plan also includes information for the surrounding community to assist in monitoring and reporting conditions that are not in compliance with the ADMP.⁹¹ The ADMP requires a publicly visible sign with the telephone number to contact regarding dust, noise, or odor complaints to be posted prior to starting construction and maintained during construction.⁹² The phone line connects the caller to the contractor directly. For general complaints, the contractor will respond and take corrective action within 24 hours. During hours of active construction, phone calls will be answered or returned as soon as practicable. During non-work hours phone calls may be diverted to a message machine and returned the next business day.⁹³

NOA-0023 Site Air Monitor Results

As explained above, in his authority as APCO, Mr. Broadbent required air monitoring components to be included in the ADMP, as such, air monitoring results from the five monitors at the NOA-0023 Site must be sent to BAAQMD daily.⁹⁴ The federal Occupational Safety and Health Administration (OSHA) standards set an emission trigger level of 0.1 structures per cubic centimeter (S/cm3) for indoor air quality.⁹⁵ The subject ADMP sets a more stringent emissions trigger level of .016 structures per cubic centimeter (S/cm3). In its June 23, 2020 Inspection Report, Albion Partners, the designated Independent Third-Party inspection company pursuant to the ADMP, stated that air monitoring results collected “during the reporting period [of June 8, 2020 to June 21, 2020] and within the monitoring network, did not indicate levels of airborne asbestos equal to or greater than 0.016 structures per cubic centimeter (S/cm3) trigger level.”⁹⁶ The report also stated that “during the reporting period, BAAQMD had not indicated that the NOA-0023 Site needed different or additional dust control measures.”⁹⁷ With his Complaint, Complainant submitted four Inspection Reports, issued by Albion Partners on June 23, 2020, August 6, 2020, September 2, 2020, and September 16, 2020.⁹⁸ The air monitoring results include varied dates between June 8, 2020 and September 11, 2020.⁹⁹ On June 16, 2020, the alleged visible dust date, all five monitors read between .0009 and .0010.¹⁰⁰

BAAQMD Air Quality Complaint Response Protocol

Although the ADMP encourages the community surrounding Parcel A to assist in monitoring and reporting conditions on the property directly to the contractor, BAAQMD also participates in monitoring Parcel A in two ways. First, as part of the ADMP’s air monitoring components, BAAQMD receives daily distribution of air monitoring results from NOA-0023, conducts

⁹⁰ ADMP, Section 8, p. 27.

⁹¹ ADMP, Section 8.4, p. 30.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ ADMP, Section 8.1.6., p. 32.

⁹⁵ 29 C.F.R. Part 1926.1101, Appendix A, OSHA Standards on Asbestos.

⁹⁶ Complaint, p. 125.

⁹⁷ *Id.*

⁹⁸ Complaint, Exhibits 12-16, p. 109-145.

⁹⁹ Complaint, Exhibits 12-16, p. 109-145.

¹⁰⁰ Complaint, Exhibit 12, p. 113.

routine inspections of Parcel A, and can indicate whether the NOA-0023 site requires additional or different dust control measures.¹⁰¹ Second, as the local air district, BAAQMD receives air complaints from the public. As part of that role, BAAQMD has an Air Quality Complaint Policy and Procedures protocol in place.¹⁰²

According to BAAQMD's procedures, an air quality complaint can be reported 24 hours a day, 7 days a week.¹⁰³ The complaints can be submitted through the toll-free complaint line¹⁰⁴ or via the online complaint form.¹⁰⁵ If a complaint is submitted during BAAQMD's core business hours of Monday through Friday, 7:30 a.m. to 6:00 p.m., complaints are received through the Air District's Dispatch Center and dispatched to Inspectors for investigation.¹⁰⁶ Each complaint is assigned a complaint reference number (C#), which is provided to the complainant and can be used to obtain the complaint investigation details and final report.¹⁰⁷ Complaints received on weekends, holidays, and outside of core business hours are processed through a third-party answering service.¹⁰⁸ During these times, the Air District has on-call staff available to respond to and investigate air pollution incidents that have "the potential for significant air emission impacts."¹⁰⁹

BAAQMD's procedures acknowledge the importance of responding promptly to air quality complaints "due to the unpredictable nature of complaints, duration of emissions, and potential public health and air quality impacts."¹¹⁰ The procedures account for "Complaint Response Time Goals" for various types of complaints.¹¹¹ For example, "Complaints with ongoing emissions" has a response time goal of 30 minutes, while "Complaints that do not have ongoing emissions" has a response time goal of 30 minutes to two (2) hours.¹¹² For asbestos complaints, inspectors are also encouraged to refer to specific asbestos policies and procedures.¹¹³

¹⁰¹ ADMP, Section 8, p. 27; *see also* Complaint, Exhibit 12, p. 109.

¹⁰² BAAQMD Air Quality Policy and Procedures, stating: "This Air Quality Complaint Policy and Procedures document provides a comprehensive overview of the program and is intended to guide Air District Inspectors (Inspectors) when responding to and investigating potential and ongoing releases of air emissions", available at: <https://www.baaqmd.gov/~media/files/compliance-and-enforcement/policies-and-procedures/air-quality-complaint-policy-and-procedures-pdf.pdf?la=es-mx> [hereinafter BAAQMD AQ Policy]

¹⁰³ *Id.*

¹⁰⁴ BAAQMD AQ Policy, BAAQMD's toll free complaint line is available at 1-800-334-ODOR.

¹⁰⁵ BAAQMD Air Quality Complaint, available at: www.baaqmd.gov/complaints.

¹⁰⁶ BAAQMD AQ Policy, p.5.

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ BAAQMD AQ Policy, p.8, BAAQMD also acknowledges that some complaints may require a more enhanced approach stating, "responding quickly can help identify sources of air emissions and allow Inspectors to investigate and determine whether violations of air quality regulations have occurred. In situations where multiple complaints are received at the same time alleging similar emissions or site, additional staff resources may be needed for the investigations. The Inspector should notify his or her Supervisor to determine if additional Inspectors can assist to ensure timely complaint response and investigations. The Supervisor may evaluate whether an enhanced response is needed, which may include assignment of overtime shift work and/or additional staff coverage during and after business hours, weekends, and holidays."

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ *Id.*, note: in this case the asbestos policy would be ADMP; ADMP.

BAAQMD's procedures emphasize a timely complaint response and recommend that upon receiving complaints, inspectors contact the complainant to obtain additional information.¹¹⁴ The procedures encourage inspectors to contact complainants for additional relevant information and to determine whether the emissions are ongoing.¹¹⁵ If the complainant is unavailable or cannot be reached by phone, the Inspector should leave a voice message and proceed with the complaint investigation.

For each air quality complaint received, a comprehensive investigation will be conducted.¹¹⁶ The steps and order of an investigation are guided by the information provided by the complainant and determined by a variety of factors.¹¹⁷ A consideration of these factors may determine the order of an investigation, such as conducting an area patrol in the community, or proceeding directly to the alleged site and potential source of emissions.¹¹⁸ The procedures state that on-site investigations occur after a conversation with the complainant, however, if the inspector is familiar with the site and the potential emissions during the course of his/her work, the inspector can proceed directly to the alleged or suspected site to document emissions and potential violations in an attempt to quickly minimize off-site impact.¹¹⁹

According to BAAQMD procedures, following the inspector's complaint investigation, each complaint will be assigned a final complaint status of "confirmed" or "unconfirmed."¹²⁰ A "confirmed" complaint status is determined when the Inspector observes the emission in person and can trace the emission to a source. For certain emission sources (e.g., asbestos), the Inspector can identify the source of the emission through sample analysis and may evaluate supporting data such as data from monitoring devices.¹²¹ An "unconfirmed" complaint status is determined when an inspector is unable to verify the emission at the time of investigation.¹²²

After completion of an investigation, BAAQMD's procedures instruct inspectors to contact complainant (if available) and inform him/her of the investigation outcome.¹²³ The complainant should be informed of the complaint status (confirmed or unconfirmed) and the investigation findings and/or resolution of the complaint, if any. As part of the investigation, inspectors draft a complaint investigation report. Complainants may request a copy of the complaint investigation report.¹²⁴

BAAQMD's Response to Complainant's Air Quality Complaint

¹¹⁴ BAAQMD AQ Policy, p. 8.

¹¹⁵ *Id.*, the policy recommends meeting the complainant in person to observe the site, provided that the Complainant is available and accessible to the site.

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ BAAQMD AQ Policy, p. 11.

¹²⁰ *Id.* at p. 13.

¹²¹ *Id.*

¹²² *Id.*

¹²³ BAAQMD AQ Policy, p. 15.

¹²⁴ BAAQMD AQ Policy, p. 15, Complainants can request a copy of a Complaint Report through the website, through the inspector, or through a public records request. Complainants may submit a Public Record Request by visiting www.baaqmd.gov/contact-us/request-public-records and providing the C#.

On June 24, 2020, Complainant spoke with BAAQMD's Supervising Air Quality Specialist, Mr. Kimball.¹²⁵ Mr. Kimball helped direct Complainant to the air pollution complaint link and informed him that he would contact BAAQMD's Senior Inspector Simon Winer to let him know a complaint would be filed.¹²⁶ On June 24, Mr. Kimball's last email to Complainant addressing questions about the air quality complaint process was sent at 5:27 PM. That evening, Complainant filed his air quality and Title VI complaint with BAAQMD.¹²⁷ Since the complaint was likely submitted after core business hours, Mr. Winer received the dispatch for the investigation on June 25, 2020. The dispatch included the air quality complaint itself, as well as the supplemental information Mr. Kimball conveyed to Mr. Winer regarding his conversation with the Complainant.¹²⁸ The air quality complaint was assigned the complaint number #243586. Mr. Winer proceeded directly to Parcel A after receiving the dispatch on June 25, 2020 morning to investigate the Complainant's air quality concerns due to alleged soil disturbances.¹²⁹ Mr. Winer was unable to confirm dust disturbances from construction because there was no work being conducted on the Parcel A on that day.¹³⁰ Mr. Winer called the Complainant after the visit to convey the findings of his inspection. Mr. Winer followed up with Complainant on June 26, 2020 via email to answer outstanding questions regarding Parcel A. On June 30, 2020, Mr. Winer drafted a Complaint Report, in which the complaint #243586 was assigned a final complaint status of "unconfirmed."¹³¹ Although the final complaint status was "unconfirmed," in the Report Mr. Winer wrote that he would follow up with Lennar to discuss Parcel A on July 1, 2020. After the completion of the formal complaint #243586 investigation, Complainant contacted Mr. Winer directly on September 14, 2020 to request he visit Parcel A again to ensure compliance with the "mitigation and monitoring program" and to check whether there were ongoing soil disturbance activities. The following day, Mr. Winer called Complainant and also followed up via email stating that he visits the site "a few times a week" and the adopted mitigation and monitoring program is being followed, stating "They [Lennar] have active water truck support if there is any use of the machinery [that could potentially cause dust]."¹³²

ECRCO's Investigation

In the subject Complaint, Complainant claimed that BAAQMD, under the regulatory authority granted by the ATCM did not comply with the ADMP, by failing to identify, mitigate, and monitor the possible risks of exposure of the surrounding community to NOA due to soil disturbances at Parcel A.¹³³ However, as stated above, Lennar, not BAAQMD is responsible for identifying and mitigating potential NOA emissions resulting from soil disturbances through the

¹²⁵ Complaint, Exhibit 2, p. 29; Complainant Interview, *supra* note 13.

¹²⁶ Complaint, Exhibit 2, p. 29, Mr. Kimball's last email to Complainant on June 24, 2020 was at 5:27 PM.

¹²⁷ Complaint, Exhibit 10, the Complaint is not timestamped, however, it may have been filed after BAAQMD staff core hours (6:00 PM), since the email from Mr. Kimball answering outstanding questions about the information to include in his complaint was sent at 5:27 PM.

¹²⁸ Complaint, Exhibit 2, p. 29, Mr. Kimball assigned the complaint to Mr. Winer and let him know the complaint was coming in.

¹²⁹ Complaint, BAAQMD Complaint Report, Exhibit 11, the complaint report states that Mr. Winer visited Parcel A at approximately 11:23 AM.

¹³⁰ Complaint, Exhibit 11.

¹³¹ *Id.*

¹³² Complaint, Exhibit 5, p. 6.

¹³³ Complaint, p. 6.

mitigation measures outlined in the ADMP.¹³⁴ Instead, BAAQMD is responsible for enforcing air quality requirements consistent with its nondiscrimination obligations through its review of air monitoring data and its response to any complaints about air quality. Therefore, ECRCO did not examine these claims, but rather investigated whether BAAQMD's response to the air quality complaint filed with BAAQMD by Complainant on June 24, 2020, resulted in a different treatment or disparate adverse impact against the predominantly Black population of Bayview Hunters Point Community.

Analysis- Disparate Treatment (Intentional Discrimination)

ECRCO investigated whether BAAQMD discriminated against the Black residents of Bayview Hunters Point on the basis of race, by failing to follow BAAQMD's Air Quality Complaint Policy and Procedures as required for all similarly situated complaints. That is, whether BAAQMD provided its investigation services for a complaint affecting the Bayview Hunters Point Community differently than it would other complaints not affecting a predominantly Black community. Evidence in a disparate treatment case must generally show that the recipient was not only aware of the complainant's protected status, but that the recipient acted, at least in part, because of the complainant's protected status.¹³⁵

Although BAAQMD procedures allow for air quality complaints to be reported 24 hours a day, 7 days a week, BAAQMD's core business hours are Monday through Friday, 7:30am to 6:00 PM. Complainant's air quality complaint was likely submitted close to or after core business hours on June 24, 2020, because Complainant's questions about the air quality complaint process were addressed by the supervisory inspector at 5:27pm.¹³⁶ Complaints filed online received afterhours are processed through a third-party answering service.¹³⁷ Such complaints are transferred to on-call staff only when the air pollution incidents have "potential for significant air emission impacts."¹³⁸ By the time Complainant filed his complaint that evening Mr. Winer was off duty.¹³⁹ Since Complainant's air quality concerns resulted from construction work on Parcel A during work hours, afterhours investigation would not have provided an inspector with the circumstances necessary to observe dust, as it was after Lennar's construction hours.

On June 25, 2020, Mr. Winer received the dispatch including the air quality complaint itself, now assigned the complaint reference number of #243586, as well as the supplemental information Mr. Kimball conveyed to Mr. Winer regarding his conversation with the Complainant, and finally the video footage Complainant provided Mr. Kimball allegedly recording visible dust at Parcel A on June 16, 2020.¹⁴⁰ BAAQMD procedures generally recommend that on-site investigations occur after a conversation with the complainant, however, if the inspector is familiar with the site and the potential emissions during the course of his/her work, the inspector can proceed directly to the alleged or suspected site.¹⁴¹ Here, Mr. Winer

¹³⁴ ADMP.

¹³⁵ *Doe ex rel. Doe v. Lower Merion Sch. Dist.*, 665 F.3d 524, 548 (3d Cir. 2011).

¹³⁶ BAAQMD AQ Policy, p. 5; *see also* Complaint, Exhibit 2, p.29.

¹³⁷ BAAQMD AQ Policy, p. 5.

¹³⁸ *Id.*

¹³⁹ Complaint, Exhibit 5, p.39; *see also* BAAQMD AQ Policy, p. 8.

¹⁴⁰ Complaint, Exhibit 2, p. 29, Mr. Kimball assigned the complaint to Mr. Winer and let him know the complaint was coming in.

¹⁴¹ BAAQMD AQ Policy, p. 11.

proceeded directly to the property to conduct his investigation prior to contacting the complainant.¹⁴² Mr. Winer's decision was consistent with the procedures because BAAQMD is not only familiar with the site, it monitors an ADMP designed to mitigate the specific potential NOA emissions reported in the complaint.¹⁴³

The procedures also emphasize a timely response to air quality complaints. Here, the recommended response time for a general reported emission that already occurred on June 16, 2020 would be 30 minutes to two (2) hours.¹⁴⁴ However, since this is an asbestos complaint, Mr. Winer would look to the specific procedures related to the activities occurring on Parcel A. Here, because of their air monitoring role pursuant to the ADMP, BAAQMD was aware that potential NOA emissions could only occur during Lennar's construction work hours at Parcel A.¹⁴⁵ Therefore, Mr. Winer's investigation at Parcel A at 11:23AM was appropriate to investigate potential visible dust during Lennar's construction work hours, provided Lennar was conducting work that day.

On June 25, during Mr. Winer's visit to Parcel A, Lennar was not conducting construction work. As a result, Mr. Winer was unable to verify the emission at the time of the investigation, and per BAAQMD protocol designated a final complaint status of "unconfirmed."¹⁴⁶ According to BAAQMD's procedures, inspectors can evaluate supporting data from air monitors to determine their final complaint status.¹⁴⁷ Here, in accordance with the ADMP, independent third-party inspectors, Albion Partners, submitted an Inspection Report (AB Report) to BAAQMD on June 23, 2020. There is no notation in his complaint report that Mr. Winer evaluated the AB Report, however, that report states that on June 16, 2020, the alleged visible dust date, all five monitors read between .0009 and .0010.¹⁴⁸ This is below the airborne asbestos trigger level of 0.016 structures per cubic centimeter (S/cm3).¹⁴⁹ As a result, Mr. Winer's final complaint status is consistent with BAAQMD procedures.

After completion of an investigation, BAAQMD procedures instruct inspectors to contact complainants, to inform them of the investigation final complaint status and any relevant findings or resolutions. Finally, BAAQMD procedures instruct inspectors to draft a complaint investigation report. Here, as per protocol, Mr. Winer called the Complainant after the visit to convey the findings of his inspection. Mr. Winer continued to communicate with Complainant to field follow up questions through June 26, 2020. On June 30, 2020, Mr. Winer drafted a Complaint Report and assigned complaint #243586 a final complaint status of "unconfirmed"¹⁵⁰ Although the final complaint status was "unconfirmed," Mr. Winer wrote that he would follow up with Lennar to discuss Parcel A on July 1, 2020 and proceeded to visit the

¹⁴² Complaint, Exhibit 5, p. 38, *see also* ADMP; BAAQMD AQ Policy.

¹⁴³ BAAQMD AQ Policy, p. 8.

¹⁴⁴ BAAQMD, AQ Policy, p. 8, stating "Complaints that do not have ongoing emissions" has a response time goal of 30 minutes to two (2) hours.

¹⁴⁵ Complaint, Exhibit 12, p.109.

¹⁴⁶ BAAQMD AQ Policy, p. 13.

¹⁴⁷ *Id.*

¹⁴⁸ Complaint, Exhibit 12, p. 113.

¹⁴⁹ Note, although the agreed upon ADMP trigger level is 0.016 structures per cubic centimeter (S/cm3), even this level does not indicate a violation, *see* 29 C.F.R. Part 1926.1101, Appendix A, OSHA Standards on Asbestos.

¹⁵⁰ Complaint, Exhibit 11.

property a few times a week after the resolution of complaint #243586.¹⁵¹ In fact, when the Complainant informally contacted Mr. Winer in September 2020 to request he visit Parcel A again to ensure compliance, Mr. Winer left Complainant a voicemail, then followed up via email stating he visits Parcel A throughout the week. Mr. Winer confirmed to the Complainant that the adopted mitigation measures were being followed, stating there was “active water truck support [to mitigate any machinery that could potentially cause dust].”¹⁵²

In investigating intentional discrimination under Title VI, ECRCO must determine whether BAAQMD intentionally treated the Complaint involving potential NOA exposure to the Black residents of the Bayview Hunters Point Community differently or otherwise knowingly caused them harm because of their race, color, or national origin. ECRCO has insufficient evidence, both direct and circumstantial of discriminatory treatment intent. Here, BAAQMD followed its procedures in the dispatch of the complaint, the investigation of the complaint, communicating with the Complainant, and reporting of the final complaint status. Mr. Winer’s investigation process was not conducted any differently than what was required of him for an asbestos air quality complaint per BAAQMD’s investigation procedures. Instead, Mr. Winer went beyond the requirements of BAAQMD’s policy in investigating the complaint by meeting with Lennar on July 1, 2020, after the final complaint status was already assigned and resolved. Furthermore, Mr. Winer continued to visit the property well after the complaint was resolved, evidenced by his discussion with Complainant in mid-September detailing his visits to Parcel A “a few times a week” to ensure the mitigation measures were continuing to take place.¹⁵³ BAAQMD’s continued efforts to monitor Parcel A outside of its role under the ADMP exceeds what is required under its complaint investigation protocol.

Analysis- Disparate Impact (Discriminatory Effect)

EPA’s regulation also prohibits disparate impact (or discriminatory effect) discrimination.¹⁵⁴ As stated earlier, in a disparate impact analysis, EPA must determine whether the recipient used a facially neutral policy or practice that had a sufficiently adverse (harmful) and disproportionate effect based on race, color, or national origin. This is referred to as the *prima facie* case. To establish an adverse disparate impact, EPA must:

- (1) identify the specific policy or practice at issue;
- (2) establish adversity/harm;¹⁵⁵

¹⁵¹ Complaint, Exhibit 5, p.36.

¹⁵² *Id.*

¹⁵³ BAAQMD AQ Policy, *see also* Complaint.

¹⁵⁴ 40 C.F.R. §7.35(b); *see, also, Guardians*, 463 U.S. at 593 (concluding that Title VI reaches unintentional, disparate impact as well as intentional discrimination); *Alexander v. Choate*, 469 U.S. at 293 (confirming that, under *Guardians*, agencies enforcing Title VI can address disparate impact discrimination through their regulations). Many subsequent cases have cited *Guardians* in recognizing the validity of Title VI disparate impact claims. *See, e.g. Villanueva v. Carere*, 85 F.3d 481, 486 (10th Cir. 1996); *New York Urban League v. New York*, 71 F.3d 1031, 1036 (2d Cir. 1995); *City of Chicago v. Lindley*, 66 F.3d 819, 827-28 (7th Cir. 1995) (internal citations omitted); *David K. v. Lane*, 839 F.2d 1265, 1274 (7th Cir. 1988); *Georgia State Conference of Branches of NAACP v. Georgia*, 775 F.2d 1403, 1417 (11th Cir. 1985) (internal citations omitted); *Larry P. v. Riles*, 793 F.2d 969, 981-982 (9th Cir. 1984); *see also* U.S. EPA’s External Civil Rights Compliance Office Toolkit, p. 8 (Jan. 18, 2017).

https://www.epa.gov/sites/production/files/2017-01/documents/toolkit-chapter1-transmittal_letter-faqs.pdf

¹⁵⁵ Adversity exists if a fact specific inquiry determines that the nature, size, or likelihood of the impact is sufficient to make it an actionable harm. U.S. EPA’s External Civil Rights Compliance Office Toolkit, at 18, fn. 41.

- (3) establish disparity;¹⁵⁶ and
- (4) establish causation.¹⁵⁷

Under this analysis, EPA must establish a *prima facie* case by determining whether the BAAQMD's Air Quality Policy and Procedures protocol and BAAQMD staff's implementation of that protocol, which is the specific policy at issue, subjected the Black residents of the Bayview Hunters Point Community to adverse and disproportionate harm based on race. This specific policy is the first prong of the *prima facie* case. ECRCO's review of the assignment of the complaint, investigation of the complaint, communication with complainant, and reporting of final complaint status determined that all actions were administered according to BAAQMD protocol.¹⁵⁸ To meet the second prong of the *prima facie* test, ECRCO analyzed whether the Black residents of the Bayview Hunters Point Community were subjected to adverse and disproportionate harm, even if BAAQMD followed their environmental complaint investigation procedures.

ECRCO did not find sufficient evidence to meet the second prong, that is, there was insufficient evidence of adverse harm being born disproportionately by the Bayview Hunters Point Community as a result of BAAQMD's administration of its air quality complaint investigation policy and procedures. Complainant's air quality complaint was assigned the final complaint status of "unconfirmed" because Mr. Winter was unable to confirm dust disturbances from construction since there was no work being conducted on the Parcel A on the day of his investigation.¹⁵⁹ However, as evidenced by the Complaint, Albion Partners' Inspection Reports, the NOA-0023 Site Monitoring Results Lennar worked on Parcel A before and since June 25, 2020.¹⁶⁰ That being said, there are several protocols in place to ensure that any work being conducted on Parcel A by Lennar, ensures that potential NOA is mitigated as required by federal and state standards. Those include the ADMP itself, BAAQMD's role in monitoring pursuant to the ADMP, and BAAQMD's routine inspections.

The ADMP is a protocol to ensure that local and industry standard mitigation measures are being employed by Lennar at Parcel A.¹⁶¹ Those protocols include BMPs, required independent third-party inspections, and air monitoring oversight by BAAQMD, SFDPH, and the community. Pursuant to the ADMP, Lennar is required to submit air monitoring results from NOA-0023 to BAAQMD on a daily basis.¹⁶² This means that if there is a monitor reading that was above the trigger level of 0.016 structures per cubic centimeter (S/cm3), BAAQMD would be privy to that

¹⁵⁶ In analyzing disparity, EPA analyzes whether a disproportionate share of the adversity/harm is borne by individuals based on their race, color, national origin, age, disability or sex. A general measure of disparity compares the proportion of persons in the protected class who are adversely affected by the challenged policy or decision and the proportion of persons not in the protected class who are adversely affected. *See Tsombanidis v. W. Haven Fire Dep't*, 352 F.3d 565, 576-77 (2d Cir. 2003) (internal citations omitted).

¹⁵⁷ *See N.Y.C. Envtl. Justice All. v. Giuliani*, 214 F.3d 65, 69 (2d Cir. 2000) (plaintiffs must "allege a causal connection between a facially neutral policy and a disproportionate and adverse impact on minorities").

¹⁵⁸ BAAQMD AQ Policy, *see also* Complaint.

¹⁵⁹ Complaint, Exhibit 11.

¹⁶⁰ Complaint.

¹⁶¹ ADMP.

¹⁶² ADMP, Section 8.1.6, p. 32, states, "All results from monitoring stations will be distributed to all project stakeholders via email on a daily basis regardless of the magnitude of the detected concentrations. The email distributions for air monitoring results will include BAAQMD staff, HPS DevCo development staff, general contractors working on behalf of HPS DevCo, and SFDPH staff."

information because of its designated role monitoring the ADMP. As noted above, Albion Partners' inspection report states that on June 16, 2020, the alleged visible dust date, all five monitors read below the trigger level. Pursuant to the ADMP, any monitoring results indicating data above the trigger level would require Lennar to shut down construction immediately.¹⁶³ Within its monitoring role under the ADMP, BAAQMD also conducts routine inspections of Parcel A and may also direct based on monitoring readings whether the NOA-0023 site needs different or additional dust control measures.¹⁶⁴

ECRCO did not find sufficient evidence to meet the second prong, that is, that there was sufficient evidence of adverse harm being born disproportionately by the Bayview Hunters Point Community as a result of BAAQMD's administration of its air quality complaint investigation policy and procedures. As such, a prima facie case of disparate impact discrimination could be established and ECRCO did not examine disparity or causation.

II. Preliminary Findings for Issue Number Two

Whether BAAQMD has and is implementing the procedural safeguards required under 40 C.F.R. Parts 5 and 7 that all recipients of federal assistance must have in place to comply with their general nondiscrimination obligations, including specific policies and procedures to ensure meaningful access to BAAQMD's services, programs, and activities, for individuals with limited English proficiency (LEP) and individuals with disabilities, and whether BAAQMD has a public participation policy and process that is consistent with Title VI and the other federal civil rights laws, and EPA's implementing regulation at 40 C.F.R. Parts 5 and 7.

ECRCO has determined that the preponderance of the evidence supports a conclusion that BAAQMD failed to comply with some of the obligations under the federal nondiscrimination laws and EPA's nondiscrimination regulation to have and implement a nondiscrimination program, including: procedural safeguards required under 40 C.F.R. Parts 5 and 7; and policies and procedures for ensuring meaningful access to BAAQMD's services, programs, and activities for individuals with LEP and individuals with disabilities.¹⁶⁵ Additionally, in 2016, ECRCO (then the Office of Civil Rights) addressed some of these requirements in a letter of findings and

¹⁶³ ADMP, p. 26.

¹⁶⁴ Complaint, p. 125.

¹⁶⁵ See Title VI, 42 U.S.C. 2000(d) *et seq.*; Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794; *Lau v. Nichols*, 414 U.S. 563, 568-69 (1974) (finding that the government properly required language services to be provided under a recipient's Title VI obligations not to discriminate based on national origin); 40 C.F.R. § 7.35(a). See also U.S. EPA, Guidance to Environmental Protection Agency Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons, 69 FR 35602 (June 25, 2004) (available at https://www.epa.gov/sites/production/files/2020-02/documents/title_vi_lep_guidance_for_epa_recipients_2004.06.25.pdf); U.S. EPA, Title VI Public Involvement Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs, 71 FR 14207 (March 21, 2006) (available at https://www.epa.gov/sites/production/files/2020-02/documents/title_vi_public_involvement_guidance_for_epa_recipients_2006.03.21.pdf); U.S. EPA, Procedural Safeguards Checklist for Recipients, at https://www.epa.gov/sites/production/files/2020-02/documents/procedural_safeguards_checklist_for_recipients_2020.01.pdf (rev. Jan. 2020) (which provides a more detailed explanation of nondiscrimination obligations and best practices); U.S. EPA, Disability Nondiscrimination Plan Sample, at https://www.epa.gov/sites/production/files/2020-02/documents/disability_nondiscrimination_plan_sample_for_recipients_2020.01.pdf (2017).

provided technical assistance to BAAQMD about regulatory compliance requirements as well as best practices, so several of these deficiencies had been identified and were not addressed despite the technical assistance provided.¹⁶⁶

Prior Technical Assistance Provided to BAAQMD by ECRCO

In 2016, ECRCO had an opportunity to review BAAQMD's nondiscrimination program, particularly its requirements under 40 C.F.R. Part 7.¹⁶⁷ ECRCO examined, in part, BAAQMD's notice of nondiscrimination, grievance procedures, designation of a nondiscrimination coordinator, Language Access Plan ("LAP"), disability access policy, and public participation process.

At that time, BAAQMD had some of these requirements in place, including a public participation plan and a LAP. ECRCO provided additional technical assistance to assist BAAQMD in achieving other areas of compliance as well as to help BAAQMD develop best practices for these documents and develop other components of its nondiscrimination program.

In response to the technical assistance provided by ECRCO, BAAQMD updated several of its nondiscrimination program documents and practices to comply with EPA's nondiscrimination regulation. At the closure of that investigation, BAAQMD had designated a nondiscrimination coordinator with a position description that included tracking, updating, evaluating the complaint process, training BAAQMD staff about the nondiscrimination obligations, establishing an investigation manual, and grievance procedures emphasizing prompt and impartial investigations. In addition, BAAQMD had crafted an "Accessibility and Non-Discrimination Policy", BAAQMD committed to posting its nondiscrimination policy prominently in its office and annual reports, as well as on its website.

Furthermore, BAAQMD committed to translating vital documents in accordance with their existing LAP, including the nondiscrimination documents in prominent LEP languages and agreed to make the documents available online and in paper formats. BAAQMD's public participation policy failed to provide guidance on how persons with disabilities would participate in BAAQMD public involvement activities and although BAAQMD included that information in its "Accessibility and Nondiscrimination Policy," ECRCO recommended it include that information also in its Public Participation Policy.¹⁶⁸

Notice of Nondiscrimination

EPA's nondiscrimination regulation requires BAAQMD have a notice of non-discrimination (Notice) stating that the recipient does not discriminate on the basis of race, color, national origin, age, sex or disability in its programs or activity receiving EPA assistance or, in programs covered by Section 13 of the Education Amendments, on the basis of sex.¹⁶⁹ The Notice must be

¹⁶⁶ EPA Complaint No. 02R-00-R9 Resolution Letter, June 6, 2016, available at

https://www.epa.gov/sites/production/files/2016-06/documents/2r-00-r9_baaqmd_resolution_letter.pdf.

¹⁶⁷ This review was part of ECRCO's investigation of BAAQMD pursuant to EPA Complaint No. 02R-00-R9, available at https://www.epa.gov/sites/production/files/2016-06/documents/2r-00-r9_baaqmd_resolution_letter.pdf.

¹⁶⁸ EPA Complaint No. 02R-00-R9 Resolution Letter.

¹⁶⁹ 40 C.F.R. § 7.95(a); 40 C.F.R. § 5.140.

posted in a prominent place including in the recipient's offices or facilities, on the recipient's website homepage, and in general publications distributed to the public. The Notice must be meaningfully accessible to individuals with limited English Proficiency (LEP) and individuals with disabilities.¹⁷⁰ The Notice must also clearly identify the nondiscrimination coordinator, including name and contact information.¹⁷¹

Preliminary Findings

ECRCO has determined that BAAQMD has a Notice of Nondiscrimination ("Notice")¹⁷², however, ECRCO has identified the following deficiencies:

- BAAQMD's Notice is not prominently displayed on its website homepage and not readily accessible to the public. To access the Notice or any information about "nondiscrimination" online, a person would have to know what they are looking for and proactively use the search bar to attempt to find the notice or any mention of discrimination. As such, this does not meet the regulatory requirement that Notice be posted prominently.¹⁷³
- BAAQMD's Notice does not include a statement addressing retaliation discrimination, that is, that BAAQMD does not intimidate or retaliate against any individual or group because they have exercised their rights to participate in or oppose actions protected/prohibited by 40 C.F.R. Parts 5 and 7, or for the purpose of interfering with such rights.¹⁷⁴
- Although BAAQMD's Notice does identify a former Nondiscrimination Coordinator, the information is outdated. Currently, John Chiladakis is the Acting Nondiscrimination Coordinator, but his information, including name and contact information enabling a member of the public to contact him, is not provided.
- EPA's nondiscrimination regulation requires "Where appropriate, such notice [of nondiscrimination] must be in a language or languages other than English." However, as previously stated, there is no prominently posted Notice, in any language. At this time, to access BAAQMD's Notice in English, a person would need to know what they are looking for and conduct a search in English. For a person with limited English proficiency, this burden is intensified, for, even if the Notice were posted prominently on BAAQMD's website homepage, currently, there is no prompt in any language other than English to access materials in any other language. The word "languages" and "English" appear at the top of the homepage and the phrase "language translation" appears at the very bottom of the page, in English. If a person knows to click on the word "English" at the top of the page, a "Google Translate" scroll down menu appears and one is able to select among Spanish, Chinese, Tagalog or Vietnamese (posted in those languages). A selection of a language will translate much, but not all of the homepage. Again, because

¹⁷⁰ 40 C.F.R. § 7.95(a); 40 C.F.R. § 5.140.

¹⁷¹ 40 C.F.R. § 7.95(a); 40 C.F.R. § 5.140.

¹⁷² BAAQMD Notice of Nondiscrimination and Accessibility, available at: <https://www.baaqmd.gov/about-the-air-district/diversity-equity-and-inclusion/accessibility>.

¹⁷³ This lack of public access of the Notice of Nondiscrimination online is particularly relevant during the time when BAAQMD offices have been inaccessible due to COVID-19 restrictions, thus, making any physically posted notices on premises, obsolete. In light of COVID-19 restrictions, the regulatory requirement as to "prominent" posting of this information, including online, is that much more important in providing access to the nondiscrimination notice.

¹⁷⁴ 40 C.F.R. § 7.100.

there is no information on the homepage about “discrimination”, in any language, even if the person with LEP figures out how to access Google Translate, they then have to conduct a search of BAAQMD’s website to find information about nondiscrimination. ECRCO finds that this is not consistent with the intent of the regulatory requirement that “Notice” be posted prominently and be available and accessible in the appropriate languages other than English.¹⁷⁵

- Finally, the EPA regulation requires that BAAQMD’s Notice be accessible to persons with disabilities. Methods of notice must accommodate those with impaired vision or hearing.¹⁷⁶ In its Notice of Nondiscrimination, BAAQMD states that it ensures the content of its website can “be reached by the widest possible audience regardless of disability, limitations of computer equipment or use of alternative Internet access devices” but does not provide more detail on how an individual with disabilities may receive an accommodation to access the notice.

Therefore, ECRCO has determined that BAAQMD is not in compliance with EPA’s nondiscrimination regulation with respect to its Notice of Nondiscrimination¹⁷⁷

Nondiscrimination Coordinator

EPA’s nondiscrimination regulation requires that EPA recipients, like BAAQMD, with fifteen or more employees must designate a nondiscrimination coordinator to oversee their nondiscrimination program.¹⁷⁸ In addition, under the “Notice of Nondiscrimination,” the regulation requires that the Notice “identify the responsible employee” designated as the recipient’s Nondiscrimination Coordinator.¹⁷⁹

Preliminary Findings

ECRCO has determined, BAAQMD has a designated Nondiscrimination Coordinator, however, ECRCO has identified the following deficiencies:

- As mentioned above, John Chiladakis has been serving as BAAQMD’s Acting Nondiscrimination Coordinator, since ECRCO accepted the subject Complaint in December 2020, however, the nondiscrimination coordinator information online still refers persons who have questions or concerns about discrimination to former nondiscrimination coordinator, Rex Sanders. A telephone number and email address is provided online for Mr. Sanders with no mention of Mr. Chiladakis. ECRCO could not find any mention of Mr. Chiladakis as the Acting Nondiscrimination Coordinator on any of BAAQMDs online materials. Further, the answering message for the telephone number provided for Mr. Sanders, states, in English only, that you have reached the BAAQMD offices and asks that you leave a message. It provides no mention of Mr.

¹⁷⁵ 40 C.F.R. § 7.95(a); 40 C.F.R § 5.140.

¹⁷⁶ 40 C.F.R. § 7.95(a); 40 C.F.R § 5.140.

¹⁷⁷ 40 C.F.R. § 7.95(a); 40 C.F.R § 5.140.

¹⁷⁸ 40 C.F.R. § 7.85(g) (if a recipient employs 15 or more employees, it shall designate at least one person to coordinate its efforts to comply with its obligations under this part); 40 C.F.R § 5.135(a) requiring the designation of a responsible employee with respect to Title IX of the Education Amendments of 1972, as amended.

¹⁷⁹ See 40 C.F.R. § 7.95; 40 C.F.R § 5.135(a) requiring the designation of a responsible employee with respect to Title IX of the Education Amendments of 1972, as amended.

Sanders or Mr. Chiladakis, a nondiscrimination coordinator, or anything about the nondiscrimination program. Mr. Sanders' email provides an automatic reply redirecting the sender to "please contact John Chiladakis, Acting CAO, at jchiladakis@baaqmd.gov," however, fails to mention that Mr. Chiladakis is serving as the Acting Nondiscrimination Coordinator.¹⁸⁰ As such, the only other way for the public to attempt to reach the Nondiscrimination Coordinator is to either write to a general address with no specific name of a person or to call the BAAQMD offices and ask for a nondiscrimination coordinator, if the person knows to ask for one. ECRCO has determined that BAAQMD is not meeting the regulatory requirement that BAAQMD identify a nondiscrimination coordinator, including how the public may access that person, with enough specificity including the name, to enable a member of the public to contact that Coordinator.¹⁸¹

- In addition, although Complainant's June 24, 2020 complaint with BAAQMD included environmental concerns, including with respect to air quality, the complaint also contained a clear complaint of discrimination: "[t]his is a complaint under Title VI of the Civil Rights Act for BAAQMD's failure to enforce compliance regarding the release of NOA."¹⁸² Although Complainant was contacted by a BAAQMD employee about the environmental issues, at no time was his civil rights complaint acknowledged, nor was the Complainant directed to the nondiscrimination complaint process, or to the nondiscrimination coordinator. (*See also* under Grievance Procedures.)
- BAAQMD confirmed that BAAQMD's Acting Non-Discrimination Coordinator was never notified about receipt of the Complainant's Title VI complaint.¹⁸³ As such, the Title VI complaint was not processed through BAAQMD's nondiscrimination grievance procedures as required by the regulation, and Complainant did not receive a determination from BAAQMD on his June 24, 2020 Title VI claim, also as required by EPA's nondiscrimination regulation. Further, it is clear that, although one of the duties of the Nondiscrimination Coordinator is to ensure that all employees who interact with the public are trained about the nondiscrimination policies and procedures (including familiarity with terms identifying discrimination claims, such as "Title VI" and "civil rights") required by the civil rights laws and EPA's nondiscrimination regulation, it appears Mr. Kimball and Mr. Winer, the BAAQMD employees who handled the Complainant's June 24, 2020 complaint with BAAQMD, had not received such training.
- On June 4, 2021, BAAQMD updated its "BAAQMD Air Quality Complaint Policy and Procedures" to include language acknowledging its commitment to the BAAQMD Accessibility and Nondiscrimination Policy, and BAAQMD staff who receive complaints claiming discrimination (denial of full and equal access to an BAAQMD program or activity based on a protected status),¹⁸⁴ "shall promptly notify their manager of the allegation and the manager shall refer the complaint to the Air District Non-

¹⁸⁰ Email from ECRCO to Rex Sanders, May 12, 2021.

¹⁸¹ 40 C.F.R. § 7.85(g), § 7.95; 40 C.F.R. § 5.135(a).

¹⁸² Title VI Complaint filed by Complainant with ECRCO, p. 101. (November 25, 2020).

¹⁸³ During ECRCO's March 10, 2021 conference call with BAAQMD, Mr. Chiladakis stated that although the Air Quality staff receive training on the nondiscrimination policies and procedures, the BAAQMD air quality staff was not familiar with the technical term "Title VI" used in Complainant's air quality complaint. As a result, the complaint was not identified as a discrimination complaint to be forwarded to the Nondiscrimination Coordinator.

¹⁸⁴ BAAQMD AQ Policy, p. 4, the policy describes discrimination and discrimination claims as a denial of full and equal access to an BAAQMD program or activity based on a protected status.

Discrimination Coordinator. BAAQMD's updated policy is a positive step, however, implementation of the new policy through proper training is imperative for BAAQMD to fully comply with the nondiscrimination laws, regulations, and best practices.

Therefore, ECRCO finds that BAAQMD is not in compliance with EPA's nondiscrimination regulation with respect to its Nondiscrimination Coordinator¹⁸⁵

Grievance Procedures

EPA's nondiscrimination regulation requires that each recipient with fifteen or more employees, like BAAQMD, adopt and publish grievance procedures that ensure the prompt and fair resolution of complaints.¹⁸⁶ Additionally, the U.S. Department of Justice's regulation on "Coordination of Enforcement of Non-discrimination in Federally Assisted Programs," requires recipients to display prominently information regarding the nondiscrimination requirements of Title VI, including the procedures for filing complaints.¹⁸⁷

Preliminary Findings

BAAQMD has adopted and published grievance procedures as "Nondiscrimination Policy and Complaint Procedures"¹⁸⁸, however, ECRCO reviewed the policy and procedures and determined that it does not assure the prompt and fair resolution of complaints. Specifically:

- BAAQMD's Nondiscrimination Policy and Complaint Procedures are not prominently displayed online and as such, not readily accessible to the public.¹⁸⁹ In order to find this policy and procedures, one must conduct a search of BAAQMD's website. We note that, to file an air pollution complaint, a complainant can find a link on BAAQMD's main homepage that takes them directly to the complaint page. The air pollution complaint form includes a live link where a complaint can be populated and immediately submitted

¹⁸⁵ See 40 C.F.R. § 7.85(g), § 7.95; 40 C.F.R. § 5.135(a).

¹⁸⁶ 40 C.F.R. § 7.90 (each recipient with 15 or more employees shall adopt grievance procedures that assure the prompt and fair resolution of complaints). See also 40 C.F.R. § 5.135(b) ("Complaint procedure of recipient. A recipient shall adopt and publish grievance procedures providing for prompt and equitable resolution of student and employee complaints alleging any action that would be prohibited by these Title IX regulations.).

¹⁸⁷ 28 C.F.R. § 42.405(c) ("Federal agencies shall require recipients, where feasible, to display prominently in reasonable numbers and places posters which state that the recipients operate programs subject to the nondiscrimination requirements of title VI, summarize those requirements, note the availability of title VI information form recipients and the federal agencies, and explain briefly the procedures for filing complaints. Federal agencies and recipients shall also include information on title VI requirements, complaint procedures and the rights of beneficiaries in handbooks, manuals, pamphlets and other material which are ordinarily distributed to the public to describe the federally assisted programs and the requirements for participation by recipients and beneficiaries. To the extent that recipients are required by law or regulation to publish or broadcast program information in the news media, federal agencies and recipients shall insure that such publications and broadcasts state that the program in question is an equal opportunity program or otherwise indicate that discrimination in the program is prohibited by federal law.").

¹⁸⁸ See at: <https://www.baaqmd.gov/contact-us/non-discrimination>

¹⁸⁹ This lack of public access online is particularly relevant during the time when BAAQMD offices have been inaccessible due to COVID-19 restrictions, thus, making any physically posted nondiscrimination policy and complaint procedure located on premises, obsolete. In light of COVID-19 restrictions, the regulatory requirement as to "prominent" posting/display of this information, including online, is that much more important in providing access to BAAQMD's nondiscrimination process.

online. However, the discrimination complaint process provides none of that access. The discrimination form must be downloaded, filled out and mailed. In fact, when this complaint was accepted for investigation, the link to BAAQMD's complaint form was broken. Once ECRCO brought this to BAAQMD's attention, the link was repaired. However, it is not known how long the link remained broken before ECRCO raised the issue with BAAQMD.

- BAAQMD's policy and procedures do not provide timeframes for completion of the investigation and an expected response time for the complainant. As such, it does not ensure "prompt" resolution of complaints.¹⁹⁰
- Neither the Nondiscrimination Policy nor the Complaint Procedures discuss or include retaliation/intimidation as one of the bases for filing a complaint under these procedures. In fact, BAAQMD's Discrimination Complaint Form does not list any bases for filing a complaint under its procedures, but rather requests complainants write in what "protected class(es) of persons" they belong to.¹⁹¹ This places an unreasonable burden on members of the public to figure out what type of complaint of discrimination is actionable and what "protected class" they would fall under. It is unreasonable to assume that the average member of the public would understand the technical definition of "protected class."
- As BAAQMD's Nondiscrimination Policy and Complaint Procedures are not prominently displayed online and as such, not readily accessible to the public it is also not accessible to persons with limited English proficiency. Even if the person with LEP is able to figure out how to access the Google Translate" function, the Complaint form itself is only accessible in English and, thus, BAAQMD is not providing meaningful access to persons with limited English proficiency to fair and prompt grievance procedures required by EPA's regulation.¹⁹²
- Finally, there is evidence that BAAQMD's nondiscrimination grievance process is not fair, prompt or available to the public. As previously discussed, the June 24, 2020 Title VI complaint filed by Complainant through BAAQMD's air pollution complaint process, the only process readily available through BAAQMD's main homepage, was never processed through BAAQMD's Nondiscrimination Policy and Complaint Procedures and Complainant never received a determination from BAAQMD on his Title VI claim.¹⁹³

Therefore, ECRCO has determined that BAAQMD is not in compliance with EPA's nondiscrimination regulation with respect to the adoption and publication of fair and prompt grievance procedures.

Meaningful Access for Persons with Limited English Proficiency (LEP)

Title VI and EPA's nondiscrimination regulation prohibit discrimination on the basis of national origin. The Supreme Court has interpreted this prohibition to include discrimination on the basis

¹⁹⁰ 40 C.F.R. § 7.90; 40 C.F.R. §5.135(b).

¹⁹¹ BAAQMD Discrimination Complaint Form, available at

<https://www.baaqmd.gov/~media/files/administration/forms/title-vi-complaint-form-pdf.pdf?la=en>.

¹⁹² 40 C.F.R. § 7.90; 40 C.F.R. §5.135(b).

¹⁹³ 40 C.F.R. § 7.90; 40 C.F.R. §5.135(b).

of English proficiency, that is, a person's inability to speak, read, write, or understand English.¹⁹⁴ As a recipient of EPA financial assistance BAAQMD is required to provide meaningful access to its services, programs and activities for persons with limited English proficiency.¹⁹⁵ To ensure BAAQMD is providing meaningful access, BAAQMD should conduct appropriate analyses to determine what languages other than English are used by persons with LEP in BAAQMD's service area and to determine what language services or mix of language services it needs to provide to ensure that persons with LEP can meaningfully access and participate in its programs, activities and services. This includes, for example, development of a language access plan; translation of vital documents into prominent languages; and provision of simultaneous interpretation of public proceedings and meetings in prominent languages for persons with LEP so they may effectively participate.¹⁹⁶

It is important to note that as part of requesting and receiving EPA financial assistance, BAAQMD agreed based on Paragraph 39 of EPA's general terms and conditions¹⁹⁷, to more specific obligations, including that: "As a recipient of EPA financial assistance, you are required by Title VI of the Civil Rights Act to provide meaningful access to LEP individuals. In implementing that requirement, the recipient agrees to use as a guide the Office of Civil Rights (OCR) document entitled "Guidance to Environmental Protection Agency Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons." The guidance can be found at: <https://www.federalregister.gov/documents/2004/06/25/04-14464/guidance-to-environmental-protection-agency-financial-assistance-recipients-regarding-title-vi> ii."

Preliminary Findings

Based on a review of all available information, including a review of BAAQMD's website and available documents, although BAAQMD has some language access policies and procedures,¹⁹⁸ overall, ECRCO has determined that BAAQMD is not providing meaningful access for persons with limited English proficiency to BAAQMD's programs, activities and services.

¹⁹⁴ See Title VI, 42 U.S.C. 2000(d) *et seq.*; *Lau v. Nichols*, 414 U.S. 563, 568-69 (1974) (finding that the government properly required language services to be provided under a recipient's Title VI obligations not to discriminate based on national origin); 40 C.F.R. § 7.35(a).

¹⁹⁵ See also U.S. EPA, Guidance to Environmental Protection Agency Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons. 69 FR 35602 (June 25, 2004) (https://www.epa.gov/sites/production/files/2020-02/documents/title_vi_lep_guidance_for_epa_recipients_2004.06.25.pdf).

¹⁹⁶ See Title VI, 42 U.S.C. 2000(d) *et seq.*; *Lau v. Nichols*, 414 U.S. 563, 568-69 (1974) (finding that the government properly required language services to be provided under a recipient's Title VI obligations not to discriminate based on national origin); 40 C.F.R. § 7.35(a). See also U.S. EPA, Guidance to Environmental Protection Agency Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons. 69 FR 35602 (June 25, 2004) (https://www.epa.gov/sites/production/files/2020-02/documents/title_vi_lep_guidance_for_epa_recipients_2004.06.25.pdf).

¹⁹⁷ https://www.epa.gov/sites/production/files/2020-11/documents/fy_2021_epa_general_terms_and_conditions_effective_november_12_2020.pdf.

¹⁹⁸ BAAQMD Language Access Plan, available at <https://www.baaqmd.gov/~media/files/communications-and-outreach/community-outreach/community-language-assessment/lep-report-111510.pdf>; see also BAAQMD Public Participation Plan available at: <https://www.baaqmd.gov/plans-and-climate/public-participation-plan>.

With respect to information available to the public related to language services, if a person is able to search BAAQMD's website, (in English unless you are able to understand and activate the "Google Translate" function) they can find information about "effective communication." This webpage includes a link to language assistance information about how to access language services, however, the information is vague and limited and can only be accessed by persons with LEP if they search the website and know how to activate the Google Translate function.¹⁹⁹ A telephone number is provided where persons can call to request language assistance. That information, and same telephone number, is also stated in Spanish. There is then a reference to information for accessing language services in other languages and the same telephone number, but this is printed in English. Upon calling the number provided, it is for the Bay Area Communications Office. A pre-recorded message instructs the public as to what number to press to access different departments and information. However, all the information provided is in English only, without any option for accessing information in any other language.

Further, if one searches BAAQMD's website, one can also find a 2010 report titled "Assessment of Limited English Proficient Populations and Current Services - Bay Area Air Quality Management District"²⁰⁰ (This report is not accessible through BAAQMD's Nondiscrimination webpage.) While this report contains important information about the demographics and languages spoken by persons with LEP in the BAAQMD service area, this information is now 12 years old and was based on 2000 Census data, as well as surveys from 2006, 2008, and 2009, and requires reassessment and update. The report also contains information about the steps BAAQMD will take to ensure meaningful access to BAAQMD's programs, services and activities, including to ensure meaningful participation for persons with LEP, it is not clear these are still in effect, given the lack of more recent policies and procedures. Further, this document is available only in English.

Finally, as previously discussed, it does not appear BAAQMD is using the services of a qualified translator to translate its "vital documents" into the appropriate languages of persons with LEP within BAAQMD's service area. Instead, online public access to information in other languages appears to be limited to the activation of a "Google Translate" function, and this function does not even apply to all sources of important information on BAAQMD's website. BAAQMD's own 2010 report appropriately calls for the translation of vital documents into the appropriate languages. However, no vital documents translated through the services of qualified translators appear to be posted online, including the nondiscrimination documents in accordance with its own 2010 policy.

Even plans and reports that discuss BAAQMD's commitment to providing access and engagement with residents it serves are not accessible to persons with limited English proficiency. For example, BAAQMD has in place a Public Participation Plan that it first published in 2013. "The plan describes how the Air District informs and engages Bay Area residents in its activities."²⁰¹ Although this plan also includes data about BAAQMD's limited

¹⁹⁹ See at: <https://www.baaqmd.gov/language-translation>.

²⁰⁰ See at <https://www.baaqmd.gov/~media/files/communications-and-outreach/community-outreach/community-language-assessment/lep-report-111510.pdf>

²⁰¹ <https://www.baaqmd.gov/plans-and-climate/public-participation-plan>.

English proficient populations/languages it serves, it does not provide specific policies and procedures how it will provide those populations effective translation and interpretation services to ensure meaningful access. Also, this report is only available online in English. Similarly, in 2020, BAAQMD published a report called “Our Shared Journey Toward Meaningful Community Engagement: Where We’ve Been & How We’re Navigating the Road Ahead Together.”²⁰² This report provides a summary of the Air District’s implementation of the 2013 Plan and although it addresses inclusion of communities with limited English proficiency and information about the inclusion of language minority communities, it also does not provide specific information about how it will ensure meaningful access through interpreter and translation services and, it is only available online in English.

Accordingly, ECRCO has determined that BAAQMD is not in compliance with its obligation under Title VI to ensure meaningful access to its services, programs or activities for persons with limited English proficiency.

Individuals with Disabilities

EPA’s nondiscrimination regulation provides that no individual with a disability “shall solely on the basis of [disability] be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity receiving EPA assistance.”²⁰³ Recipients also must make sure that interested persons, including those with impaired vision or hearing, can find out about the existence and location of program services, activities, and facilities that are accessible to and usable by persons with disabilities and that recipients must give priority to methods of providing accessibility that offer program benefits to persons with disabilities in the most integrated setting appropriate.²⁰⁴ To ensure nondiscrimination for persons with disabilities, it is a recognized best practice for recipients to develop, publicize and implement written procedures to ensure meaningful access to its programs, services and activities for individuals with disabilities that clearly and consistently provide a recipient’s “plan” for how it will provide, at no cost, appropriate auxiliary aids and services, including but not limited to, qualified interpreters to individuals who are deaf or hard of hearing, and to other individuals as necessary to ensure effective communication and an equal opportunity to participate fully in the benefits, activities, programs and services provided by the recipient, in a timely manner and in such a way as to protect the privacy and independence of the individual. To assist recipients with its nondiscrimination requirements, EPA has published a sample disability nondiscrimination plan, which provides technical assistance guidance with respect to the nondiscrimination coordinator’s role, grievance procedures, facility accessibility, and accommodations.²⁰⁵ ECRCO has responsibility for enforcing Section 504 of the Rehabilitation Act of 1973, but does not have responsibility for enforcing compliance with the Americans with Disabilities Act (ADA). However, the Sample Plan addresses both statutes, in recognition that most recipients have obligations under both laws.

²⁰² https://www.baaqmd.gov/~media/files/planning-and-research/ppp/our_shared_journey_toward_meaningful_community_engagement-pdf.pdf?la=en.

²⁰³ 40 C.F.R. § 7.45.

²⁰⁴ 40 C.F.R. § 7.65 (b) and (d).

²⁰⁵ https://www.epa.gov/sites/production/files/2020-02/documents/disability_nondiscrimination_plan_sample_for_recipients_2020.01.pdf

Preliminary Findings

BAAQMD's Disability Policy has been combined with its Notice of Nondiscrimination and is very limited in the information it provides. In its policy, BAAQMD does include information about auxiliary aids and services being available to individuals with disabilities to ensure effective communication and participation.²⁰⁶ It does not make clear, however, that these services will be provided at no cost to the requester, which may reasonably serve as a deterrent for an individual with disabilities from requesting accommodations. Furthermore, it does not make any explicit reference to ensuring that facilities and in-person meetings will be made or selected based on their accessibility to individuals with physical disabilities. It is important that such a reference be included here as BAAQMD does not make any reference to individuals with disabilities within their public participation plan.²⁰⁷ Neither BAAQMD's accessibility statement, nor its grievance procedures provides clear and consistent instructions for persons with disabilities on how to seek reasonable accommodations in order to meaningfully participate in BAAQMD's programs, services and activities and/or to file a grievance for discrimination on the basis of disability.²⁰⁸ Under these circumstances, ECRCO has determined that BAAQMD is not in compliance with Section 504 of the Rehabilitation Act of 1973, or EPA's nondiscrimination regulation.

Public Participation

BAAQMD must ensure that no person is excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving EPA assistance on the basis of race, color, national origin, disability, age or on the basis of sex and age in any program or activity receiving EPA assistance.²⁰⁹ Indeed, EPA's guidance reminds recipients that public participation policies, processes and practices must be consistent with Title VI and the other federal civil rights laws, and EPA's implementing regulation at 40 C.F.R. Parts 5 and 7.²¹⁰ Further, in EPA's Title VI Public Involvement Guidance, EPA encourages recipients of EPA federal funding to fully engage with as many members of the affected [by a particular program] community as possible in the discussions and decisions made regarding issues in their community.²¹¹ Drafting a public participation plan helps recipients to consider differences in culture, levels of experience and knowledge, and financial resources in implementing and creating accessible programs and services.²¹² A public participation plan is a document that outlines early involvement tools to identify community concerns and lay out approaches recipients plan to take to address those concerns through its programmatic services and outreach activities. It also serves as a source to community members of their public involvement opportunities during recipient's decision-making processes.²¹³ An effective public participation

²⁰⁶ BAAQMD Nondiscrimination and Accessibility Notice at https://www.baaqmd.gov/about-the-air-district/diversity-equity-and-inclusion/accessibility?sc_lang=en&switch_lang=true.

²⁰⁷ 40 C.F.R. § 7.45; 40 C.F.R. § 7.65 (b) and (d).

²⁰⁸ 40 C.F.R. § 7.45; 40 C.F.R. § 7.65 (b) and (d).

²⁰⁹ 40 C.F.R. § 7.145; 40 C.F.R. § 7.30; 40 C.F.R. § 7.45; 40 C.F.R. § 7.65 (b) and (d).

²¹⁰ Environmental Protection Agency Title VI Public Involvement Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs, 71 FR 14207, available at <https://www.govinfo.gov/content/pkg/FR-2006-03-21/pdf/06-2691.pdf>.

²¹¹ 71 FR 14207, 14211.

²¹² 71 FR 14207, 14211.

²¹³ 71 FR 14207, 14211.

plan also creates a basis for efficient communication with the public, answers basic concerns about community involvement and helps ensure more collaborative, and as a result better decision topics that affect the community.²¹⁴ ECRCO encourages recipients to include communities in the development of public participation plans. Public participation plans are public documents that should always be available for public viewing. They should also be living documents that can be easily revised to address any needs and concerns that may arise in the community.

Preliminary Findings

Based on a review of publicly available information, including a review of BAAQMD's website and documents, BAAQMD does have in place a Public Participation Plan that includes many of the "best practices" encouraged by EPA's Title VI Public Involvement Guidance to ensure the broadest possible engagement with all communities within BAAQMD's service area.²¹⁵ However, because ECRCO has found that BAAQMD does not have in place the necessary policies and procedures to provide meaning access for persons with limited English proficiency and persons with disabilities, ECRCO has determined that BAAQMD's public participation policies are deficient and provide evidence that BAAQMD is failing to ensure meaningful access for persons with limited English proficiency and persons with disabilities as required by federal civil rights laws and EPA's nondiscrimination regulation. In 2016, ECRCO provided BAAQMD with technical assistance regarding its public participation plan.²¹⁶ Specifically, ECRCO highlighted that BAAQMD's public participation plan failed to mention any procedures addressing accessibility for individuals with disabilities.²¹⁷ Although BAAQMD acknowledged that its Public Participation Plan is a "living document" to be updated and changed as required to reflect community needs, according to its website, the document has not been revised since June 30, 2015.²¹⁸ BAAQMD's "accessibility" language in its Notice of Nondiscrimination is not an appropriate substitute for including explicit disability language in its Public Participation plan. As a "living document" a public participation plan should describe how the recipient will provide meaningful access to individuals with disabilities and, as highlighted above, BAAQMD's language on accessibility and accommodations in its Notice of Nondiscrimination document are lacking. Finally, one of the significant elements of Public Participation Plans is to ensure that recipients consider meaningful access in determining the appropriate time, place, location, duration, and security at public meetings are developed and applied in a non-discriminatory manner. BAAQMD's Public Participation document fails to discuss any of these factors, including how these factors will be considered to ensure meaningful access for persons with disabilities.

²¹⁴ 71 FR 14207, 14211.

²¹⁵ BAAQMD Public Participation Plan, available at https://www.baaqmd.gov/~media/files/communications-and-outreach/community-outreach/public-engagement/ppp_final_121713.pdf?la=en [hereinafter BAAQMD Public Participation Plan].

²¹⁶ EPA Complaint No. 02R-00-R9 Resolution Letter.

²¹⁷ EPA Complaint No. 02R-00-R9 Resolution Letter.

²¹⁸ BAAQMD Public Participation Plan.

Based on the above, ECRCO finds that BAAQMD is not ensuring that its public participation policies, processes, and practices are consistent with Title VI, Section 504, and EPA's implementing regulation at 40 C.F.R. at Part 7.²¹⁹

III. Summary of Preliminary Findings

As discussed above, ECRCO has concluded its investigation of both the first and second issues.²²⁰ With respect to the first issue, ECRCO has concluded that there is insufficient evidence to support a finding that BAAQMD discriminated against the Black residents of the Bayview Hunters Point Community on the basis of race in its response to Complainants air quality complaint. With respect to the second issue, ECRCO has determined that the preponderance of the evidence supports a conclusion that BAAQMD failed to comply with some of its obligations under federal nondiscrimination laws and EPA's nondiscrimination regulation with respect to BAAQMD not having in place or implementing a nondiscrimination program, including: procedural safeguards required under 40 C.F.R. Parts 5 and 7; policies and procedures for ensuring meaningful access to BAAQMD's services, programs, and activities for individuals with LEP and individuals with disabilities; and a public participation program that ensures meaningful access to those proceedings to persons with limited-English proficiency and individuals with disabilities.²²¹

IV. Steps for Resolving Preliminary Findings of Noncompliance and Achieving Compliance

After ECRCO makes a preliminary finding of noncompliance, the administrative process for resolving the finding is set forth in 40 C.F.R. Part 7.115(d). The regulation provides that "(a)after receiving the notice of the preliminary finding of noncompliance in paragraph (c) of this section, the recipient may: (1) Agree to the OCR's recommendations, or (2) Submit a written response sufficient to demonstrate that the preliminary findings are incorrect, or that compliance may be achieved through steps other than those recommended by OCR." If BAAQMD does not take one of these actions within fifty (50) calendar days after receiving this preliminary notice, ECRCO will, within fourteen (14) calendar days, send a formal written determination of noncompliance to the recipient and copies to the Award Official and Assistant Attorney General.

²¹⁹ 71 FR 14207.

²²⁰ EPA Complaint No. 01R-21-R9 Acceptance letter.

²²¹ See Title VI, 42 U.S.C. 2000(d) *et seq.*; Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794; *Lau v. Nichols*, 414 U.S. 563, 568-69 (1974) (finding that the government properly required language services to be provided under a recipient's Title VI obligations not to discriminate based on national origin); 40 C.F.R. § 7.35(a). See also U.S. EPA, Guidance to Environmental Protection Agency Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons, 69 FR 35602 (June 25, 2004) (available at https://www.epa.gov/sites/production/files/2020-02/documents/title_vi_lep_guidance_for_epa_recipients_2004.06.25.pdf); U.S. EPA, Title VI Public Involvement Guidance for EPA Assistance Recipients Administering Environmental Permitting Programs, 71 FR 14207 (March 21, 2006) (available at https://www.epa.gov/sites/production/files/2020-02/documents/title_vi_public_involvement_guidance_for_epa_recipients_2006.03.21.pdf); U.S. EPA, Procedural Safeguards Checklist for Recipients, at https://www.epa.gov/sites/production/files/2020-02/documents/procedural_safeguards_checklist_for_recipients_2020.01.pdf (rev. Jan. 2020) (which provides a more detailed explanation of nondiscrimination obligations and best practices); U.S. EPA, Disability Nondiscrimination Plan Sample, at https://www.epa.gov/sites/production/files/2020-02/documents/disability_nondiscrimination_plan_sample_for_recipients_2020.01.pdf (2017).

ECRCO proposes to resolve these preliminary findings through a Voluntary Compliance Agreement²²² to address the deficiencies discussed in this letter. Following this letter, ECRCO will contact BAAQMD to discuss a Voluntary Compliance Agreement. In addition, ECRCO offers BAAQMD the opportunity to enter into an Informal Resolution Agreement that would allow ECRCO and BAAQMD to address collaboratively the remaining issue accepted for investigation, without findings of compliance or noncompliance.²²³

V. Recommendations for Achieving Voluntary Compliance

Pursuant to 40 C.F.R. § 7.115(c)(1)(ii), ECRCO makes the following recommendations to address the compliance deficiencies identified in this letter:

A. Notice of Non-Discrimination under the Federal Non-Discrimination Laws

1. BAAQMD will post a notice of non-Discrimination (Notice) on BAAQMD's website homepage, in all BAAQMD's offices and facilities, and in its general publications that are distributed to the public (*e.g.*, public outreach materials, such as brochures, notices, fact sheets or other information on rights and services; applications or forms to participate in or access BAAQMD programs, processes or activities). BAAQMD will ensure that its Notice is accessible to individuals with limited-English proficiency (LEP) in the appropriate language(s)²²⁴ and individuals with disabilities, including ensuring that the Notice posted on the BAAQMD Website Homepage is accessible to persons who are blind or have low vision, and for individuals with color vision impairment or color blindness.

The Notice will contain, at a minimum, the following recommended text:

- a. BAAQMD does not discriminate on the basis of race, color, national origin, disability, age, or sex in administration of its programs or activities, and BAAQMD does not intimidate or retaliate against any individual or group because they have exercised their rights to participate in or oppose actions protected/prohibited by 40 C.F.R. Parts 5 and 7, or for the purpose of interfering with such rights.
- b. [Insert name and title of non-discrimination coordinator] is responsible for coordination of compliance efforts and receipt of inquiries concerning non-discrimination requirements implemented by 40

²²² Case Resolution Manual (Jan. 2021) at Section 5.1 (https://www.epa.gov/sites/production/files/2021-01/documents/2021.1.5_final_case_resolution_manual_.pdf).

²²³ Case Resolution Manual (Jan. 2021) at Section 3.1 (https://www.epa.gov/sites/production/files/2021-01/documents/2021.1.5_final_case_resolution_manual_.pdf).

²²⁴ U.S. EPA, Guidance to Environmental Protection Agency Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons. 69 FR 35602 (June 25, 2004) (https://www.epa.gov/sites/production/files/2020-02/documents/title_vi_lep_guidance_for_epa_recipients_2004.06.25.pdf) (Providing guidance in Section V(1): "the number or proportion of LEP persons from a particular language group served or encountered in the eligible service population."

C.F.R. Parts 5 and 7 (Non-Discrimination in Programs or Activities Receiving Federal Assistance from the Environmental Protection Agency), including Title VI of the Civil Rights Act of 1964, as amended; Section 504 of the Rehabilitation Act of 1973; the Age Discrimination Act of 1975; Title IX of the Education Amendments of 1972; and Section 13 of the Federal Water Pollution Control Act Amendments of 1972 (hereinafter referred to collectively as the federal non-discrimination laws).

- c. If you have any questions about this notice or any of BAAQMD's non-discrimination programs, policies or procedures, you may contact:

(Name)

(Position)

(Organization/Department)

Bay Area Air Quality Management District

375 Beale Street

Suite 600

San Francisco, CA 94105

(Phone Number)

(Email)

If you believe that you have been discriminated against with respect to a [Recipient Name] program or activity, you may contact the [insert title of non-discrimination coordinator] identified above or visit our website at [insert Recipient website address] to learn how and where to file a complaint of discrimination.

2. If the identity of the Non-Discrimination Coordinator changes, then BAAQMD will promptly update materials as appropriate.

B. Grievance Procedures to Process Discrimination Complaints filed under the Federal Non-Discrimination Laws

1. BAAQMD will post Grievance Procedures to promptly and fairly process and resolve discrimination complaints filed under federal non-discrimination statutes and the EPA's implementing regulations at 40 C.F.R. Parts 5 and 7 on the BAAQMD website homepage, in all BAAQMD's offices and facilities, and in its general publications as appropriate that are distributed to the public. BAAQMD will ensure that its Grievance Procedures are accessible to individuals with LEP in the appropriate language(s) and individuals with disabilities, including ensuring that the Notice as posted on its Website Homepage is accessible to individuals who are blind or have low vision, and for individuals with color vision impairment or color blindness.
2. The Grievance Procedures will:
 - a. Clearly identify the Non-Discrimination Coordinator, including name and contact information;
 - b. Explain the role of the Non-Discrimination Coordinator relative to the coordination and oversight of the Grievance Procedures;

- c. State who may file a complaint under the Grievance Procedures and describe the appropriate bases for filing a complaint;
 - d. Describe which processes are available, and the options for complainants in pursuing either;
 - e. Describe elements of the recipient's investigation process and provide timelines for: the submission of a discrimination complaint; the investigation's review, conclusion, or resolution process; or making an appeal of any final decision;
 - f. State that the preponderance of the evidence standard will be applied during the analysis of the complaint;
 - g. Contain assurances that intimidation and retaliation are prohibited and that claims of intimidation and retaliation will be handled promptly and fairly pursuant to your Grievance Procedures in the same manner as other claims of discrimination;
 - h. Assure the prompt and fair resolution of complaints which allege violation of federal non-discrimination laws;
 - i. State that written notice will be promptly provided about the outcome of the investigation, including whether discrimination is found and the description of the investigation process.
 - j. Be reviewed on an annual basis (for both in-print and online materials), and revised as necessary, to ensure prompt and fair resolution of discrimination complaints.
3. BAAQMD will review and revise as necessary the Grievance Procedures on an annual basis to ensure prompt and fair resolution of discrimination complaints.
- C. Designation of Non-Discrimination Coordinator
1. BAAQMD will designate at least one Non-Discrimination Coordinator to ensure compliance with the federal non-discrimination laws, who will:
- a. Provide information to individuals internally and externally that BAAQMD does not discriminate on the basis of race, color, national origin, disability, age, or sex in the administration of the BAAQMD's programs or activities, and that the BAAQMD does not intimidate or retaliate against any individual or group because they have exercised their rights to participate in or oppose actions protected/prohibited by 40 C.F.R. Parts 5 and 7, or for the purpose of interfering with such rights;
 - b. Provide notice of the BAAQMD's grievance processes and the ability to file a discrimination complaint;
 - c. Establish a mechanism (e.g., an investigation manual) for implementation of the BAAQMD's Grievance Procedures to ensure that all discrimination complaints filed with the BAAQMD under federal non-discrimination laws and the EPA implementing regulations 40 C.F.R. Parts 5 and 7 are processed promptly and fairly. One element of any policy and procedure or mechanism must include providing meaningful access for individuals with limited English

- proficiency and individuals with disabilities to the BAAQMD's services, programs and activities;
- d. Track all complaints filed with the BAAQMD under federal non-discrimination laws, in order to identify any patterns or systemic problems;
 - e. Conduct semiannual reviews/analysis of all complaints filed with the BAAQMD under the federal non-discrimination laws identified within this Agreement, and/or any other discrimination complaints independently investigated by BAAQMD covering these laws, to identify and address any patterns, systematic problems or any trends identified;
 - f. Ensure that appropriate training is provided for BAAQMD staff in the processes available to resolve complaints filed with BAAQMD under federal non-discrimination laws;
 - g. Ensure that appropriate training is provided for BAAQMD staff on BAAQMD's non-discrimination policies and procedures, as well as the nature of BAAQMD's obligation to comply with federal non-discrimination laws;
 - h. Ensure that complainants are updated on the progress of their complaints filed with BAAQMD under federal non-discrimination laws and are promptly informed as to any determinations BAAQMD has made;
 - i. Undertake periodic evaluations of the efficacy of BAAQMD's efforts to provide services, aids, benefits, and participation in any of BAAQMD's programs or activities without regard to race, color, national origin, disability, age, sex or prior exercise of rights or opposition to actions protected under federal non-discrimination laws.
- 2. The Non-Discrimination Coordinator will not have other responsibilities that create a conflict of interest (*e.g.*, serving as the BAAQMD Non-Discrimination Coordinator as well as its legal advisor or representative on civil rights issues).
 - 3. BAAQMD will identify, by name and position, at least one individual who will serve as Non-Discrimination Coordinator(s) consistent with the regulatory requirements of 40 C.F.R. §5.135, §7.85(g), and §7.95(a).
- D. BAAQMD Plan to Ensure Meaningful Access to Programs and Activities for Persons with Limited English Proficiency (LEP)
- 1. BAAQMD will conduct an appropriate analysis as described in EPA's LEP Guidance found at 69 F.R. 35602 (June 25, 2004)²²⁵, to identify the appropriate language groups and determine what language services or mix of language services BAAQMD needs to provide (*e.g.*, interpreters and translators), to ensure that limited-English proficient individuals can meaningfully participate in BAAQMD's services, programs and activities.

²²⁵ <https://www.govinfo.gov/content/pkg/FR-2004-06-25/pdf/04-14464.pdf>.

2. BAAQMD will develop, publicize, and implement written procedures (a Language Access Plan) to ensure meaningful access to all BAAQMD services, programs and activities for individuals with LEP, at no cost to those individuals.

E. BAAQMD Plan to Ensure Meaningful Access to Programs and Activities for Persons with Disabilities

1. BAAQMD will develop, publicize, and implement a Disability Access Plan to ensure meaningful access to all BAAQMD programs, services, and activities for individuals with disabilities.²²⁶
2. BAAQMD will provide, at no cost, auxiliary aids and services to individuals with disabilities, (including, but not limited to, for example, qualified interpreters to individuals who are deaf or hard of hearing, and to other individuals, as necessary), to ensure effective communication and an equal opportunity to participate fully in benefits, activities, programs, and services provided by BAAQMD in a timely manner in such a way as to protect the privacy and independence of the individual.
3. BAAQMD will ensure that its facilities and other facilities utilized by BAAQMD (*e.g.* if BAAQMD holds a public hearing at a school or recreational center) are physically accessible to, individuals with disabilities.

F. Training

1. BAAQMD will ensure that all its employees and contractors have been appropriately trained on federal non-discrimination obligations and all plans, policies and procedures created and implemented as part of this letter. BAAQMD may request assistance from EPA for any of the training required in this letter.
2. BAAQMD will forward to EPA for review a draft plan for ensuring that such training is a routine part of the on-boarding process for new employees and contractors and is given regularly as refresher training to all employees and contractors.

This letter sets forth ECRCO's preliminary findings in EPA Complaint No. 01R-21-R9. This letter is not a formal statement of ECRCO policy and should not be relied upon, cited, or construed as such. This letter and any findings herein do not affect BAAQMD's continuing responsibility to comply with Title VI or other federal non-discrimination laws and EPA's regulations at 40 CFR Parts 5 and 7, nor do they affect EPA's investigation of any Title VI or other federal civil rights complaints or address any other matter not addressed in this letter.

If you have questions about this letter please feel free to contact me at (202)564-9649, by email

²²⁶ See Disability Nondiscrimination Plan Sample, at https://www.epa.gov/sites/production/files/2020-02/documents/disability_nondiscrimination_plan_sample_for_recipients_2020.01.pdf

at dorka.lilian@epa.gov, or Zahra Khan, Case Manager, at (202)564-0460, by email at khan.zahra@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'LSD', with a stylized flourish at the end.

Lilian S. Dorka, Director
External Civil Rights Compliance Office
Office of General Counsel

cc:

Angelia Talbert-Duarte
Associate General Counsel
Civil Rights & Finance Law Office

Deborah Jordan
Deputy Civil Rights Official
US EPA Region 9

Gretchen Busterud
Deputy Regional Counsel
US EPA Region 9

Todd Gonsalves
Legal Counsel
BAAQMD

Michael Osinski
Director, Office of Grants and Debarment
EPA Headquarters

Pamela S. Karlan
Principal Deputy Assistant Attorney General
Department of Justice
Office of the Assistant Attorney General

Quality Assurance Statement

As a local air pollution control district in the state of California, the Air District has extensive experience implementing quality assurance and quality control practices for regulatory and non-regulatory ambient air measurement programs. Should the Air District be selected for an award, we will develop a Quality Assurance Project Plan (QAPP) to assure that the results obtained satisfy the project objectives. Key elements of the QAPP will include but may not be limited to:

- **Data quality objectives for measurement data** - Data quality objectives (DQOs) such as precision, accuracy, representativeness, completeness, comparability, and measurement range will be established.
- **Training requirements/certification** - Equipment installation, operation, quality checks, and maintenance will be performed by qualified Air District or partner staff.
- **Documentation and records** - Information and records needed for the project will be identified.
- **Sampling process design** - Specifics of data collection and study design for the project components will be based on the final project objectives, which will be developed in cooperation with community to include where and when sampling takes place and will ensure that the sampling design meets the specified DQOs. Component 1 of the project will employ the air monitoring van, which is outfitted with a suite of air quality instrumentation for both gas and particulate matter monitoring. The air monitoring van has been designed to collect in-motion air quality data allowing for highly spatially resolved snapshots of air quality in an area. Multiple drives through a selected area will take into account day-to-day variability. Component 2 of the project will involve portable monitors, which are designed for short- or medium-term stationary measurements with higher temporal resolution than the air monitoring van.
- **Sampling methods requirements** - All sampling methods used will follow standard operating procedures (SOPs), which are used to check initial operation, regular maintenance guidelines, and minimum acceptable performance parameters. SOPs also exist for the operation of ancillary equipment and computer-based data storage. SOPs are stored on a District server and are annually reviewed for accuracy and completeness.
- **Sample handling and custody requirements** - The Air District will follow applicable SOPs and maintain associated chain of custody documentation for any samples that are collected.
- **Analytical methods requirements** - Analytical methods and equipment needed for the analysis of each parameter will be identified and described.
- **Quality control requirements** - The quality system will include quality control (QC) checks comprised of internal tasks, such as instrument calibration checks and, if needed, instrument calibration, to ensure accurate and precise measurements of air quality. The QAPP will include details about the frequency, testing levels, and acceptance criteria for QC checks, guided by manufacturers guidelines and EPA guidelines, where appropriate.
- **Instrument/equipment testing, inspection, and maintenance requirements** - All Air District air monitoring equipment is thoroughly checked prior to installation. In addition to frequent QC checks to ensure proper instrument performance, routine servicing and maintenance of instruments with associated documentation ensures proper instrument performance. Major repairs and maintenance are recorded in the instrument logbook. These procedures are outlined in the instrument SOPs.
- **Data management** - The Air District logs data using onboard data loggers with data backed up in triplicate on a weekly basis.
- **Data review, validation, verification, and reconciliation requirements** - Before release to outside persons, all data generated from the project will be checked. Data will be reviewed, verified, and validated to the highest levels possible based on the type of data, monitoring objectives, and tools available for data review.

- **Reports** - The QAPP will identify the frequency, content, and distribution of reports to data users, sponsors, and partnership organizations that detail project status and other relevant content. Reports that communicate results to community members or other members of the general public will be developed in collaboration with our project partners.

March 24th, 2022

Bay Area Air Quality Management District
Meteorology & Measurement Division



Subject: Support for the “Local-scale Community-led Monitoring in East Oakland” project proposed by the Bay Area Air Quality Management District

Dear Ms. Chiang,

On behalf of Communities for a Better Environment (CBE), I write this letter to support the application of the Bay Area Air Quality Management District for a grant to fund the “Local-scale Community-led Monitoring in East Oakland” project, a collaboration between the Air District, CBE, and UC Berkeley. As outlined in the Air District’s grant application, I affirm CBE’s commitment to work with the Air District and UC Berkeley to anchor the community engagement throughout the project.

Communities for a Better Environment is a tax-exempt 501(c)(3) community-based organization founded in 1978. The mission of CBE is to build people’s power in California’s communities of color and low income communities to achieve environmental health and justice by preventing and reducing pollution and building green, healthy and sustainable communities and environments. Our work in East Oakland seeks to reduce the disproportionate pollution burdens that endanger the health of East Oakland residents, the majority of whom are Black, Latinx, and people of color. East Oakland residents are assaulted by air pollution from multiple sources that include a foundry and crematorium, as well as by pollution from trucks, and trains that run to and from the Port of Oakland.

CBE reached out to both the Air District and UC Berkeley to collaboratively design the project based on the needs and interests of CBE’s East Oakland members. For several years, CBE and the Air District have been building towards a model of partnership that combats historical environmental injustices created through past Air District and other air quality management practices. We are excited to partner with both organizations to leverage their technical monitoring and training expertise to fill air monitoring data gaps identified by East Oakland residents, while putting data and air monitoring resources in the hands of the community.

Specifically, CBE’s commitments to this project include conducting outreach, as well as co-developing and hosting community workshops and training sessions with the Air District and UC Berkeley. Throughout this process, CBE will work to ensure community members’ voices and needs are centered.

We urge you to fund this important project, to provide critical resources to advance the struggle for clean air in East Oakland.

Sincerely,

Iliana Alvarado

Iliana Alvarado, Director of Finance and Operations
Communities for a Better Environment

Manifest for Grant Application # GRANT13579972

Grant Application XML file (total 1):

1. GrantApplication.xml. (size 25795 bytes)

Forms Included in Zip File(total 6):

1. Form ProjectNarrativeAttachments_1_2-V1.2.pdf (size 16011 bytes)

2. Form SF424_3_0-V3.0.pdf (size 24241 bytes)

3. Form SF424A-V1.0.pdf (size 23173 bytes)

4. Form EPA4700_4_3_0-V3.0.pdf (size 23379 bytes)

5. Form OtherNarrativeAttachments_1_2-V1.2.pdf (size 15996 bytes)

6. Form EPA_KeyContacts_2_0-V2.0.pdf (size 37413 bytes)

Attachments Included in Zip File (total 5):

1. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1235-QA Statement (final).pdf application/pdf (size 46554 bytes)

2. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1237-4700-attachment (final).pdf application/pdf (size 589313 bytes)

3. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1236-CBE Support Letter (final).pdf application/pdf (size 153908 bytes)

4. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1238-UCB subaward details.pdf application/pdf (size 606976 bytes)

5. ProjectNarrativeAttachments_1_2 ProjectNarrativeAttachments_1_2-Attachments-1234-Project Narrative (final).pdf application/pdf (size 156072 bytes)

Local-scale Community-led Monitoring in East Oakland

Applicant Information

Applicant:	Bay Area Air Quality Management District		
DUNS Number:	078781416		
Address:	375 Beale St. San Francisco, CA 94105	Primary Contact:	Katherine Hoag (415) 749-4619 khoag@baaqmd.gov
Description of Applicant Organization:	The California Legislature created the Air District in 1955 as the first regional air pollution control agency in the country. The agency is tasked with regulating stationary sources of air pollution in the nine counties that surround San Francisco Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma counties. The Air District does this using a broad set of approaches including rulemaking, permitting, enforcement, ambient air monitoring, grant and incentive programs, and community partnerships, among others.		

Set-Aside: No set-aside

Project Partners

Organization:	Communities for a Better Environment	University of California, Berkeley
Contact:	Dan Sakaguchi dan@cbeal.org	Chelsea Preble cvpreble@berkeley.edu

Project Summary

Location:	The project will be implemented in East Oakland, which is a region of Oakland, CA. Specifically, the project will focus on the ZIP codes 94621 and 94603.
Air Pollutant Scope:	Particulate matter, VOCs (including many air toxics)
Description:	The proposed project will involve three air monitoring components, each designed in collaboration with the Air District's community partners for the project and with members of the community at large. First, we will use an air monitoring van to perform exploratory measurements of volatile organic compounds (VOCs) - including many air toxics - and particulate matter (PM) characteristics around sources or receptors of interest to the community. This will be followed by studies using short- or medium-duration stationary measurements to investigate questions raised by the results of the screening measurements. The third component will involve deployment of a network of outdoor and indoor commercial PM sensors and DIY air filtration units to community members and schools, who will be trained to interpret data and respond to air quality emergencies, such as wildfire smoke events.
Project Period:	October 2022 through September 2025

Budget Summary

EPA Funding Requested	Total Project Cost (including in-kind contributions)
\$298,114	\$1,683,588

Section 1 – Project Summary and Approach

A. Overall Project

The proposed air monitoring project will use a multifaceted approach for characterizing local-scale air quality impacts in East Oakland. Specifically, it will involve three components, each designed in collaboration with the Air District's partners for the project – Communities for a Better Environment (CBE) and University of California, Berkeley (UCB) – and with members of the community at large:

1. **Component 1 (C1)** - use of an air monitoring van to perform exploratory measurements of volatile organic compounds (VOCs) – including many air toxics – and particulate matter (PM) characteristics around sources or receptors of interest to the community,
2. **Component 2 (C2)** - follow-up studies using short- or medium-duration stationary measurements to investigate questions raised by the results of the screening measurements, and
3. **Component 3 (C3)** - deployment of a network of outdoor and indoor commercial PM sensors and DIY air filtration units to community members and schools, who will be trained to interpret data and respond to air quality emergencies, such as wildfire smoke events.

The project will begin with technical assessments and community engagement to determine the areas for mobile monitoring. East Oakland is an expansive area that includes diverse and complex emissions sources, and we cannot realistically characterize the impacts from all of them. Therefore, as preliminary steps, the Air District will compile data from sources like emissions inventories, complaints, and existing air monitoring efforts. These data will be used to develop an initial picture of known or potential sources of VOCs and PM, and areas where concerns about air pollution exposure are not well characterized. CBE and the Air District will then engage with community members to hear about sources and receptors of interest or concern to define specific areas in East Oakland for the C1 exploratory measurements.

Exploratory measurements will be performed using the Air District's own state-of-the-art air monitoring van. Equipped with a proton-transfer reaction mass spectrometer (PTR-MS), the air monitoring van can measure low-level concentrations of hundreds of VOCs at 1-second intervals. Across the study area, this approach can locate plumes or provide information about the general spatial variations of targeted gas-phase air toxics like benzene, toluene, ethylbenzene, and xylene (collectively known as BTEX), which are emitted by a wide range of mobile and stationary sources. A project-specific target compound list beyond BTEX will be developed to include other compounds that are specific to sources of concern identified through community engagement efforts.

The air monitoring van is also equipped with a fast mobility particle sizer and an optical particle sizer, which together are capable of measuring both particle concentration and size distribution of particles between 0.0056 and 10 micrometers at 1-second frequencies. Additional measurements include methane, carbon monoxide, carbon dioxide, nitrogen oxides, and black carbon. Lastly, it includes instrumentation for collecting meteorological measurements, including temperature and pressure, as well as wind speed and direction when the van is stationary. Location data are integrated with these measurements by use of a global positioning system.

Measurements from the air monitoring van will provide snapshots in time of pollutant concentrations. While some results may indicate what sources are contributing to elevated pollutant concentrations, others may leave questions unanswered or raise new questions. In the second component of the project (C2), the Air District will deploy portable monitors to provide temporal information at certain locations. Sources, pollutants, and monitoring locations will be selected after re-engaging with community members to understand their questions and concerns based on the insights from the first phase of monitoring. Locations of interest may include areas where the first phase of monitoring detected enhanced air toxics or PM signals but where temporally resolved emissions profiles were not achievable with the van. Depending on the source and pollutant, the portable monitors may be deployed from one to several weeks.

Lastly, in parallel with Components 1 and 2, a third component (C3) will involve deployment of approximately 70 PurpleAir PA-II-SD PM sensors for one year, and distribution of 30 air filtration systems throughout East Oakland. This component will be led by CBE and UCB. A subset of approximately five monitors will be paired with battery units and Wi-Fi hotspots, to allow the hosting of PurpleAir monitors by unsheltered community members who may not have reliable power or internet access, and yet are often the most exposed to ambient air pollution. At least five monitors will also be reserved for elementary and high schools. Community members will be able to opt in to receive both an indoor and outdoor air monitor, an indoor air filtration unit, and an incentive (e.g., a gift card or stipend) for their participation. UCB researchers and students will support this work, including installing the units, training community members on interpreting PM data, and evaluating the indoor air quality impact of the indoor filtration units during wildfire events.

Together, it is expected that all three components of the project will aid in:

1. evaluating VOC and PM levels around specific facilities identified and prioritized by community members;
2. identifying community hotspots where VOC and PM levels are unusually high compared to surrounding areas;
3. informing efforts to reduce emissions and exposure, future regulatory development and enforcement, or other activities;
4. providing community members with consumer-grade PM sensors to increase the accessibility to real-time PM data throughout an area that has fewer sensors than other parts of the Bay Area; and
5. providing community members with air filters to mitigate and reduce infiltrated wildfire PM pollution inside residences and buildings.

B. Project Significance

East Oakland community members and organizations have long advocated for health equity, cleaner air, and investments to promote a green and regenerative economy. This work responds to decades of racist and discriminatory practices such as redlining and land use zoning, which have excluded East Oakland and other communities of color from wealth-building opportunities while simultaneously and disproportionately locating polluting industry in Black and Brown neighborhoods. The results of these racist policies have been long-lasting, as freeways and industrial facilities have been built through the heart of the community, causing irreversible harm to East Oakland residents.

Today, East Oakland is a majority Black and Brown community that contains large tracts of industrially zoned land with a mix of large and small stationary industrial sources that directly emit pollutants to the atmosphere and that generate many daily truck trips. These sources are often directly upwind of residences and schools. East Oakland also is a major transportation corridor with goods moving via ship, rail, congested freeways, and truck routes in close proximity to people's homes. This area includes Interstate 880, Oakland International Airport, and industrial and logistics businesses associated with the Port of Oakland.

In general, communities located near industrial and mobile sources experience higher levels of air pollution compared to other urban areas. These disparate impacts are not always captured by long-term ambient air monitoring stations or modeling efforts, as long-term monitoring stations are not designed to capture neighborhood-scale variability in ambient pollution, and modeling may not reflect all of the local emissions contributing to total exposure. However, air quality studies specifically designed to collect spatially resolved air quality data using mobile platforms, sensor networks, or other short-duration stationary monitoring deployments can help to 1) reveal areas with persistently elevated pollutant concentrations, 2) improve our understanding of gradients in ambient pollution levels near sources, 3) quantify relative contributions from known emissions sources, and 4) identify of new sources.

Overall, this approach of combining Air District equipment for high-resolution characterization of a range of air contaminants with low-cost, community-hosted PM monitors, addresses multiple needs in East Oakland. Local-scale impacts from a range of industrial facilities are currently poorly characterized, and data from high-grade monitoring equipment is vital to identify potential health impacts and to focus future regulatory efforts. Meanwhile, despite experiencing some of the worst air quality in the East Bay, East Oakland has very few PurpleAir monitors and is an air quality “data desert.” PurpleAir monitors are an essential community resource to produce the real-time data needed to understand day-to-day air quality concerns, especially during acute, high PM pollution events like wildfires that are increasingly common in California. Participating community members will receive PurpleAir monitors, air filtration resources, and training to build ownership in monitoring and responding to air quality emergencies.

As a result, this project will provide essential information for the development of effective strategies for reducing air pollution exposure and emissions. This is particularly timely in the case of East Oakland, as this project will provide community members with information that will support an ongoing, community-led emissions reduction program already underway. On February 11, 2022, the California Air Resources Board (CARB) approved the Air District’s recommendation to select East Oakland for development of a Community Emissions Reduction Program (CERP) under the State’s Community Air Protection Program (AB 617) and in partnership with CBE. The data from this project will inform AB 617 efforts in East Oakland, including development of the CERP by a community-led steering committee as well as relevant rulemaking, enforcement, and incentive funding activities.

In addition to the technical and policy-making impacts of this project, this monitoring project also represents an opportunity to further develop relationships between the Air District and East Oakland community groups. CBE has been working with the Air District for several years to develop community partnerships and build trust, given that Air District and other air quality management policies and practices have historically not served communities like East Oakland. By leveraging Air District monitoring resources in a community-directed project that will tangibly advance existing priorities for air quality, this project will build on and sustain that trust and relationship as we continue to work together through the AB 617 process.

Section 2 – Community Involvement

A. Community Partnerships

The Air District is partnering with CBE and UCB on this project from development of this proposal to delivery of the final results.

Founded in 1978, CBE is a well-established environmental justice organization with a legacy of building frontline capacity to combat environmental and climate injustices. CBE’s mission is to build people’s power to achieve environmental health and justice in low-income communities and communities of color throughout California by preventing and reducing pollution and building green, healthy and sustainable communities and environments. CBE’s pentad model consisting of organizing, story-telling, civic engagement, research, and legal, empowers and inspires Black, Indigenous, People of Color (BIPOC) frontline communities to take on leadership positions in the fight to prevent and reduce pollution in some of California’s most impacted communities, while simultaneously building towards a Just Transition to a clean regenerative economy and economy energy system.

For project components C1 and C2, CBE’s strengths in community organizing and engagement, and the Air District’s technical resources and expertise, offer a unique opportunity to collaborate and learn from one another while working for environmental health and justice in East Oakland. All work will be performed collaboratively and in coordination with community members. The Air District will have a lead role for the preliminary data analysis, operation of the air monitoring van, and selection and operation of the monitoring equipment, while CBE will have a lead role in designing and executing the community

organizing and engagement portions of the project to design the monitoring plan. Analysis and dissemination of the resulting data will be collaborative and iterative and will be done in partnership between the Air District, CBE, and community members.

For project component C3, CBE will collaborate with researchers and students from UCB, including Chelsea Preble (Research Engineer), Thomas Kirchstetter (Division Director and Adjunct Professor), and James Butler (PhD Student). The Berkeley team has extensive experience characterizing on-road emissions from heavy-duty diesel trucks operating around freight-handling facilities and along truck routes in Oakland. They have also successfully deployed community-based networks of low-cost black carbon sensors in collaboration with local environmental justice organizations in West Oakland, Richmond, and Modesto, California. Similar to the monitoring components, this partnership will leverage CBE's community expertise and the UCB team's experience with community training, sensor network design, and data analysis.

B. Community Engagement

All aspects of this project have been designed in close collaboration with CBE East Oakland organizers and will continue to be designed with members of the CBE Environmental Justice (EJ) workgroup, a group of engaged East Oakland residents that meet biweekly on local EJ issues. As such, the project structure has been designed to meet key community needs to fill existing resource and air quality data gaps. Throughout the project CBE will actively engage community members with in-depth knowledge of air quality concerns and toxic facilities to design monitoring plans and outreach strategies.

Our community engagement efforts will begin with a presentation by the Air District to the EJ workgroup to explain in detail what monitoring options are available. Then in coordination with CBE and the EJ workgroup, we will develop a preliminary list of priority sources (e.g., industrial facilities, warehouses, etc.) and priority receptor areas (e.g., schools, parks, and other areas where people spend time) to monitor. With CBE and the EJ workgroup, we will also develop a vision for a community event to learn about EJ, to let the community see and learn about the air monitoring van, learn about air quality sensors, and provide input on priority areas for screening measurements with the van and where to deploy the PM sensors. We will then work with stakeholders to finalize the areas to target for mobile monitoring, perform the monitoring, deploy the sensors, and report back to the EJ workgroup to decide where to perform follow-up short-term stationary monitoring.

In addition to promoting component C3 at the community events developed for the first two components, we also intend to generate targeted outreach materials such as mailers, flyers, and social media tools, leveraged through ally organizations and AB 617 CERP events, to connect with East Oakland residents and sites willing and able to host a PurpleAir monitor. In collaboration with UCB, CBE will also host an "Intro to EJ / CBE" community gathering of interested residents and site hosts to learn about the connection between EJ and PurpleAir monitoring. A series of training sessions will also be provided to learn more about what PurpleAir monitors are, what they measure, how they work, and how to develop and set up a "phone tree" system to notify neighbors when air quality is poor and what to do during such an event. Finally, UCB and CBE will review data and hold quarterly sessions with site hosts to answer questions and show data results. This will also include a youth component, through which several indoor and outdoor sensors will be reserved for local elementary and high schools in East Oakland. In collaboration with CBE's Youth EJ program, the UCB team will provide training sessions to students to interpret and analyze the data collected at their schools.

As a goal of this project is to support community action, our engagement strategy will be designed to build community capacity throughout. This includes development of technical skills through Air District training sessions, capacity building for PurpleAir monitor site hosts to interpret and respond to air quality emergencies, and hosting neighborhood events like the one mentioned above to allow people to see the air monitoring van or other equipment up close, learn about the project, and learn about other opportunities to get involved. Another key component of this will be a project website to provide

community members with access to information about the project design, the monitoring data, analytical results, and other resources that may aid their advocacy efforts. Development of the website will be an early step in the project so it will serve as a resource over the project's lifetime.

All of these activities will be coordinated with the extensive community engagement efforts that will take place for development of the CERP under AB 617. Data resulting from these activities will also be made readily accessible for the CERP community steering committee to best identify and adopt emission reduction strategies.

Section 3 – Environmental Justice and Underserved Communities

Located in north-western Alameda County near the East Bay waterfront, East Oakland is a predominantly Black, Latinx, and people of color community of approximately 162,600 people. Nearly half of the population in East Oakland is Latinx, and another 30% of the residents are Black Americans.

As noted above, East Oakland is a major transportation corridor with numerous freeways and railways used for diesel-powered freight movement as well as non-commercial travel, and it borders industrially zoned land, which has businesses that directly emit pollutants to the atmosphere and produce and attract high numbers of daily truck trips. In addition, East Oakland is densely populated, exceeding 3,000 persons per square mile across a majority of the community and 5,880 persons per square mile in some areas. Consequently, the predominantly Black and Brown residents live in close proximity to industrial sources and experience significant cumulative impacts associated with high levels of air, water, and soil pollution.

Data from the State of California shows the degree to which the East Oakland community is overburdened. CalEnviroScreen identifies communities (by census tract) that are disproportionately burdened by and vulnerable to multiple sources of pollution by using twenty-one statewide indicators. Individual indicator scores are provided along with composite scores based on a specified formula. Scores are provided as percentiles, with higher percentiles representing a greater burden on the community. The population characteristics used by CalEnviroScreen include emergency department visits associated with asthma among others.

Compared to all census tracts in the state, thirty-one of the thirty-five census tracts in East Oakland have composite scores above the 50th percentile, twelve are above the 80th percentile, and six are above the 90th percentile. In addition, East Oakland has one of the highest asthma hospitalization rates in the country, with children under five especially hard hit. Thirty-three out of the thirty-five census tracts are in the 90th percentile for asthma hospitalization, and nineteen are above the 99th percentile.

The cumulative impacts on the people of East Oakland can only be described as environmental injustice, and they were made worse by the COVID-19 pandemic. Of all the ZIP codes in Alameda County, 94603 had a COVID infection rate eight times that of the ZIP code with the lowest infection rate, 94618, which covers an affluent area of Oakland at the other end of the city 10 miles away. Yet, East Oaklanders are organized, and they are actively engaged in grassroots efforts to improve conditions in their community. Through the extensive community engagement plan described above, this project will continue to be designed in collaboration with the residents of East Oakland and the resulting data will support their pursuit for a green, regenerative community.

Section 4 – Environmental Results – Outcomes, Outputs and Performance Measures

A. Expected Project Outputs and Outcomes

Expected outputs from this project include the following:

- A community-specific assessment of existing ambient air quality and emissions data to facilitate community-partnered design of the monitoring plans

- Identification and quantification of air pollutants associated with sources in East Oakland through a screening phase of measurements using an air monitoring van followed by a second round of more targeted short- to medium-duration measurements
- Community engagement and capacity building through neighborhood events, community training sessions, and hosting of PurpleAir sensors
- A project website that provides the community with informational resources and air quality monitoring data

Expected outcomes include:

- A better understanding of air pollution concentrations within East Oakland, including spatial and temporal variations on a local scale
- Increased access to data and information that will support existing grassroots efforts to remedy environmental injustices experienced by East Oakland residents
- Reduction of ambient concentrations of pollutants and human exposure stemming from development and implementation of a Community Emission Reduction Plan under AB 617, which will be directly informed by the results of this project

B. Performance Measures and Plan

To ensure successful completion of the project, the Air District will implement a robust plan for collecting, analyzing, and reporting on indicators that show how well we are performing. Based on criteria established by the International City/County Management Association for excellence in local government performance reporting, our plan includes the following primary components:

- **Coordination** – we will designate a primary staff person to oversee performance management for the duration of the project, including coordination across teams within the Air District and coordination among the Air District and its community partners
- **Data collection** – we will ensure systems and processes are in place to capture the data needed to track the selected performance metrics
- **Public reporting with context** – we will report our performance both to EPA in our quarterly progress reports and to the public on the website for the project; reporting will include narrative text to explain the meaning or significance of the metrics and data
- **Verification** – we will take efforts to verify, correct, or explain any data that may be in question
- **Networking and documentation of lessons learned** – we will reflect on lessons learned over the course of the project and share our experiences with other teams in the Air District, with our community partners, and with EPA in our final report for the project.

Specific performance measures tracked will focus on both the *quantity* and *quality* of our work.

Quantity measures:

- Total staff hours spent on project implementation
- Number of routine coordination meetings for project planning and implementation
- Number of sites (sources or receptors) monitored (C1 & C2)
- Number of PurpleAir sensor site hosts and PurpleAir sensors deployed (C3)
- Total miles driven in the air monitoring van (C1)
- Total hours of monitoring data collected (C1 & C2)
- Number of community engagement events and number of community members present (C1, C2, & C3)

Quality measures:

- Spatial and temporal representativeness of the monitoring data, including the number of passes made with the air monitoring van around the same monitoring location (C1 & C2)
- Distribution of measurements from 9 am to 4 pm Monday through Friday (C1 & C2)
- Participant satisfaction with engagement events (C1, C2, & C3)

- Degree to which data gaps are filled and/or usefulness of data to the community (C1, C2, & C3)
- Visitor engagement metrics for the project website (e.g., page views, average time on page, average session duration, pages per session, new visitor sessions, repeat and new visitors) (C1, C2, & C3)

C. Timeline and Milestones

	2022	2023				2024				2025		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Establish grant agreement												
Develop QAPP												
Launch project website												
Engage with community to inform project design and implementation of components C1 and C3												
Finalize monitoring objectives and monitoring plan for C1; update website												
Open application for community members to participate in PurpleAir component (C3)												
Screening monitoring for gaseous air toxics and PM using Air District van (C1)												
Analyze data and communicate results with context; update website												
Orient site hosts to PurpleAir component, distribute & install sensors and filters (C3)												
Primary C3 monitoring period												
Engage with community to gather input on objectives and monitoring plan for portable or short-term monitoring (C2)												
Finalize monitoring objectives and monitoring plan for C2; update website												
Conduct C2 monitoring												
Analyze data and communicate results with context; engage w/ community & update website (C2 & C3)												
Prepare final project report												
Close out project												
Notes: (1) Time frames represent calendar quarters; (2) Timeline assumes submittal of quarterly progress reports throughout the life of the project; (3) C1, C2, and C3 refer to the three components of the project (C1 = mobile van monitoring, C2 = follow-up stationary monitoring, C3 = PurpleAir and air filtration program). If unlabeled, task applies to all three components.												

Section 5 – Quality Assurance Statement

As directed in Appendix B of the RFA, the Quality Assurance Statement has been submitted separately using the Other Attachments form.

Section 6 – Programmatic Capability and Past Performance

A. Past Performance

Since 1991, the Air District has successfully administered more than \$1.2 billion in revenue for grant programs that achieve surplus emissions reductions through air quality improvement projects with sub-grantees. This includes multiple grants under the ARRA and DERA National Clean Diesel programs and a more recent grant for the Residential Woodburning Devices and Lawn and Garden Replacement Program. As a local air pollution control agency in the state of California, the Air District is also a recipient of grant funding from EPA under Sections 105 and 103 of the Clean Air Act. Both these grants include requirements for ambient air monitoring that the Air District has met or exceeded for over two decades.

B. Reporting Requirements

In all cases noted above the Air District has fulfilled its reporting requirements. The EPA STAG grants from 103 and 105 come with requirements for reporting data to both AirNow and EPA's Air Quality System. Our collected ambient data far exceeds data completeness requirements, meets data quality objectives, and is shared in near-real-time and in AQS in a timely fashion. The Air District consistently reports on these and other grant conditions during and at the end of each grant cycle.

C. Staff Expertise

Collectively, the staff who will work on this project have many decades of experience developing and implementing air quality programs. Below is a brief summary of key project staff and their relevant experience; note that this list is not exhaustive of all staff who will work on the project.

Air District

Katherine Hoag (Assistant Manager, Ambient Air Quality Analysis) - Kate Hoag has been measuring and analyzing air quality or pollutant exposure data since 1995. She currently leads a group of Air District staff who work on ambient air monitoring study design and data analysis, both for the agency's regulatory monitoring network and for community monitoring projects, including the development of the AB 617 CAMP for the Richmond-North Richmond-San Pablo area. She also served as the agency's Quality Assurance Officer for over three years. Prior to joining the Air District in 2015, she worked at Region 9 EPA in the Air Quality Analysis and Permits Offices and at the School of Public Health at UNC-Chapel Hill in an exposure assessment laboratory. Kate earned a MS in Atmospheric Science from Colorado State University and a Ph.D. in Earth and Planetary Science from UC Berkeley.

Joe Lapka (Sr. Air Quality Specialist, Ambient Air Quality Analysis) - Joe has an undergraduate degree in civil and environmental engineering, a master's degree in public administration, more than a decade of experience implementing air quality programs at the US EPA, and more than seven years of experience as an analyst and project manager for the City of San Francisco. At EPA, Joe implemented federal permitting and enforcement programs under the Clean Air Act, and at the City of San Francisco he provided internal management consulting services to City departments on projects typically involving data analysis, organizational performance management, and stakeholder facilitation.

Jon Bower (Manager, Air Monitoring Projects and Technology) - Jon has undergraduate degrees in mathematics and environmental science and a doctorate in atmospheric science. He has over 10 years of experience in research and leading teams on environmental monitoring projects. Jon has worked in air monitoring at BAAQMD since 2013 and has been a lead on the air monitoring special projects team (within AMPT) since its inception in 2015. Most recently, this team has developed and deployed a state-of-the-art air monitoring van to measure air toxics and particulate matter within communities.

Charity Garland (Assistant Manager, Air Monitoring Projects and Technology) - Charity Garland has a B.S. in environmental chemistry from UC Santa Cruz and a M.S. in atmospheric chemistry from UC Berkeley. She has participated in air quality-related field studies since 2009 and has led air quality field projects internationally and domestically since 2013. Charity joined BAAQMD in the Meteorology and

Measurements division in 2017 and has been supervising the air monitoring special projects team (within AMPT) since 2018. Currently the special projects team is collecting ambient air quality data in the Richmond/North Richmond/San Pablo community operating a state-of-the-art mobile air monitoring lab used to measure air toxics and particulate matter.

CBE

Ernesto Arevalo (Northern California Program Director) - Ernesto Arevalo first began their time at CBE as an East Oakland member, then joined the staff as CBE's Climate Adaptation Resiliency Enhancement (CARE) Coordinator in April 2016, and was selected for their current position in 2017. After graduating from UC Davis in Environmental Policy Analysis and Planning, they wanted to use what they had learned to help improve their community. Because of their experience with organizing as a member then as a staff member of CBE, as well as their educational background, Ernesto is able to serve versatile roles, shifting from community organizing and communications to research and institutional organizing. They are committed to ensuring that the community's voice is heard and that the planning process is more accessible to residents.

Esther Goolsby (Building the Good Organizer) - Esther Goolsby is an Oakland native, a parent of three, a grandmother of two, and a health and justice advocate who says it's time for positive change in her county of Alameda! Esther was born in Alameda County, raised in East Oakland, and has been volunteering with local organizations in her neighborhood since 2011. After taking a toxic tour with Communities for a Better Environment, Esther became more focused and learned to educate and organize her community about environmental racism and poor and/or non-existing land-use policy. Esther has served on boards and partnered with other organizations and many other coalitions to improve the health of residents, and in 2020 was a candidate for District 4 of Alameda County Board of Supervisors, receiving 33.3% of the vote. Currently she serves as the President of the REAL People's Fund (Revolutionizing our Economy for All Local People Fund), an organization founded and democratically governed by six East Bay community organizing groups offering equitable access to finance for small businesses in historically disinvested communities.

Mykela Patton (East Oakland Youth Organizer) - Mykela Patton is an Oakland native and a graduate of Skyline High School. She is currently studying environmental policy at Colby College. Mykela is adamant about engaging her community and overall society around issues surrounding environmental injustices that impact marginalized communities the most. For her, it is important that people of color, low-income people, youth and any other marginalized group have a voice in decision making as many communities are already beginning to feel those impacts of climate change.

Cindy Ibarra Morales (East Oakland Organizer) - Cindy Ibarra grew up experiencing outcomes of the environmental injustices in Oakland. After graduating from UC Berkeley, she wanted to fight for environmental justice in her community and joined CBE staff in 2019.

Dan Sakaguchi (Staff Researcher) - Dan Sakaguchi has a B.S. in physics and a M.S. in Earth Systems from Stanford University. He has been a staff researcher with CBE since 2018 and provides technical support, including data and policy analysis, to the Richmond and East Oakland teams on a range of air pollution, energy, and land use campaigns.

UCB

Chelsea Preble (Research Engineer) - Chelsea Preble earned her MS and PhD in Environmental Engineering from UC Berkeley. She has 13 years of experience conducting air pollution research and is an expert on characterizing air pollutant sources, controls, and impacts. In her work, she uses novel sensing technologies to characterize emission sources and air pollution trends that affect underserved communities. Her research includes: measuring in-use emissions from heavy-duty diesel trucks and commercial harbor craft; developing community-based air quality sensor networks while working in close partnership with local environmental justice organizations; and quantifying emissions from alternative energy technologies like anaerobic digesters and composting windrows.

Section 7 – Budget

A. Budget Detail

Line Item & Itemized Cost	Source (In-kind or EPA)	Cost
Personnel		
(1) Sr. air quality specialist (AAQA) @ \$59/hr x 32 hrs/month x 36 months	In-kind	\$67,968
(1) Assistant manager (AAQA) @ \$88/hr x 12 hrs/month x 36 months	In-kind	\$38,016
(2) Air quality specialist (AMPT) @ \$59/hr x 170 hrs/month x 20 months	In-kind	\$401,200
(1) Sr. air quality specialist (AMPT) @ \$69/hr x 80 hrs/month x 20 months	In-kind	\$110,400
(1) Principal air quality specialist (AMPT) @ \$76/hr x 80 hrs/month x 20 months	In-kind	\$121,600
(1) Assistant manager (AMPT) @ \$88/hr x 25 hrs/month x 36 months	In-kind	\$79,200
(1) Manager (AMPT) @ \$91/hr x 8 hrs/month x 36 months	In-kind	\$26,208
(1) Director @ \$103/hr x 1 hrs/month X 36 months	In-kind	\$3,708
TOTAL PERSONNEL (EPA FUNDED PORTION ONLY)		\$0
TOTAL PERSONNEL (EPA FUNDED + IN-KIND)		\$848,300
Fringe Benefits		
62.68% of direct chargeable salaries & wages	In-kind	\$531,714
TOTAL FRINGE BENEFITS (EPA FUNDED PORTION ONLY)		\$0
TOTAL FRINGE BENEFITS (EPA FUNDED + IN-KIND)		\$531,714
Travel		
Milage for mobile monitoring: 125 mi/wk @ \$0.56/mi x 78 wks	In-kind	\$5,460
TOTAL TRAVEL (EPA FUNDED PORTION ONLY)		\$0
TOTAL TRAVEL (EPA FUNDED + IN-KIND)		\$5,460
Equipment		
NA	NA	NA
TOTAL EQUIPMENT (EPA FUNDED PORTION ONLY)		NA
TOTAL EQUIPMENT (EPA FUNDED + IN-KIND)		NA
Supplies		
Custom blend gas cylinders (carrier gases and calibration gases)	EPA funded	\$10,000
Consumables (e.g., inlet filters, sample filters, filter tape)	EPA funded	\$2,000
TOTAL SUPPLIES (EPA FUNDED PORTION ONLY)		\$12,000
TOTAL SUPPLIES (EPA FUNDED + IN-KIND)		\$12,000
Contractual		
NA	NA	NA
TOTAL CONTRACTUAL (EPA FUNDED PORTION ONLY)		NA
TOTAL CONTRACTUAL (EPA FUNDED + IN-KIND)		NA
Other		
Subaward to CBE (see description in Section 7.B below)	EPA funded	\$128,081
Subaward to UCB (see description in Section 7.B below)	EPA funded	\$150,533
30 community member incentives @ \$250/incentive	EPA funded	\$7,500
TOTAL OTHER (EPA FUNDED PORTION ONLY)		\$286,114
TOTAL OTHER (EPA FUNDED + IN-KIND)		\$286,114
Indirect Charges		
NA	NA	NA
TOTAL INDIRECT (EPA FUNDED PORTION ONLY)		\$0
TOTAL INDIRECT (EPA FUNDED + IN-KIND)		\$0
TOTAL EPA FUNDING REQUESTED		\$298,114
TOTAL PROJECT COST		\$1,683,588

B. Reasonableness of Costs

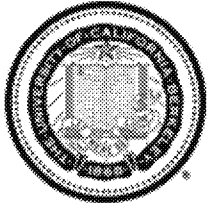
The total estimated cost for the project is \$1,683,588. The Air District will cover \$1,385,474 of the total costs (82%) through in-kind contributions, leaving \$298,114 in requested funding from EPA. The majority of the project expenses are for personnel and fringe benefit costs, which is reasonable since the project involves numerous labor-intensive activities such as community engagement, development of monitoring plans, driving the air monitoring van, deploying short-term stationary monitoring equipment, performing QA/QC activities, performing data analysis, project management, and reporting. Except for a small amount of funding needed for supplies for the van and community member incentives, the funding from EPA will be used to cover the expenses of our project partners for components C1 and C2, and all of the expenses for component C3. Like the Air District, most of the costs for both community partners are for personnel. Other expenses included in the subaward for CBE include printing costs for engagement materials, web hosting services, graphic design services, interpretation & translation services, fees for community event space, travel expenses to a conference for capacity building, and food for community events. Expenses other than personnel included in the subaward to UCB include the seventy PurpleAir sensors; five solar-powered battery systems; five Wi-Fi hotspots; five 12-month cellular data plans; ninety air filters; thirty box fans; consumables for sensor and filter installation; computer equipment; and travel expenses for community engagement activities, equipment installation, and a conference.

Funding for the in-kind contributions has been included in the Air District's proposed budget for the next fiscal year (July 1, 2022 to June 30, 2023) and, if adopted by the Air District Board of Directors, will be provided through a combination revenue sources such as property taxes, fees, and state funding for AB 617 implementation. If this project is awarded, funding would be proposed to the Board of Directors in future fiscal years as well.

C. Expenditure of Awarded Funds

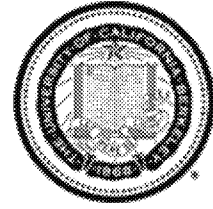
As a local air pollution control agency in the state of California, the Air District both receives grants (such as those under CAA Section 105) and awards grants to a variety of recipients. The Air District's extensive experience administering grant programs will ensure the awarded funds are expended in a timely and efficient manner. Specifically, the approach, procedures, and controls used by the Air District will include the following:

- **Confirm requirements** - we will familiarize ourselves with all of the performance, documentation, reporting, and other requirements of the grant agreement and establish a detailed work breakdown structure to plan out and schedule our activities
- **Establish a project calendar** - this will be used to track all project deadlines and milestones
- **Budget setup** - Upon receipt of the grant award (or in advance of the award to the extent possible) we will set up our budgeting, accounting, and time tracking systems to appropriately manage funds and expenditures per the terms of the grant agreement
- **Fiscal monitoring** - A principal focus will be placed on fiscal monitoring throughout the life of the project
- **Performance management** - As described in Section 4.B (Performance Measures and Plan), the Air District will ensure successful completion of the project by implementing a robust plan for collecting, analyzing, and reporting on indicators that show how well we are performing.
- **Subaward oversight** - As a portion of the grant funds will be passed through to our community partners, we will monitor the performance of the subaward recipients.



Sponsored Projects Office

University of California, Berkeley
1608 Fourth St. Suite #220
Berkeley, CA 94710-1749



Principal Investigator: **Chelsea Preble**

Sponsor: **Bay Area Air Quality Management District/EPA**

Project Title: **Enhanced Air Quality Monitoring for Communities:**

Local-Scale Monitoring for Near-Source Impacts in East Oakland, California

Reference: **32878**

Please accept the enclosed proposal submitted on behalf of The Regents of the University of California, Berkeley campus. Should this proposal be selected for funding, award documents should be issued using the information provided below. Please contact the undersigned if you have any questions or need additional information regarding this proposal.

Endorsed for the Regents by:

3/23/2022

Joyce Chun Diaz
Contract and Grant Officer
Phone: (510) 642-8109
Fax: (510) 642-8236
Email: joycechun@berkeley.edu

AWARDS SHOULD BE MADE TO: The Regents of the University of California c/o Sponsored Projects Office University of California, Berkeley 1608 Fourth St. Suite #220 Berkeley, CA 94710-1749 email address for electronic awards: spoawards@berkeley.edu Main Office: (510) 642-0120 Fax: (510) 642-8236 Website: http://spo.berkeley.edu	CHECKS SHOULD BE MADE PAYABLE TO: The Regents of the University of California CHECKS SHOULD BE SENT TO: Contracts & Grants Accounting attn: Elizabeth Chavez, Interim Director University of California, Berkeley 2195 Hearst Avenue, Room 130F Berkeley, CA 94720-1103 Telephone: (510) 642-1371 Fax: (510) 643-7628
--	---

**Enhanced Air Quality Monitoring for Communities:
Local-Scale Monitoring for Near-Source Impacts in East Oakland, California**

Proposal with BAAQMD and CBE in Response to EPA RFA #EPA-OAR-OAQPS-22-01

UC Berkeley Scope of Work

UC Berkeley (UCB) will be a subrecipient to the Bay Area Air Management District (BAAQMD) to support their proposed monitoring project in East Oakland, California. The proposed study is in response to the Environmental Protection Agency (EPA) request for applications as part of the American Rescue Plan (ARP) funding—*Enhanced Air Quality Monitoring for Communities*, RFA #EPA-OAR-OAQPS-22-01. Communities for a Better Environment (CBE), a local environmental justice advocacy organization that is working to build community power in East Oakland to mitigate air pollution and build healthy and sustainable environments, will also be a subrecipient to BAAQMD. The project will center on the Hegenberger Corridor, roughly 1.5 miles by 0.8 miles along the I-880 freeway, capturing the 94621 and 94601 ZIP codes that are heavily impacted by stationary and mobile air pollution sources.

BAAQMD will conduct two phases of air monitoring in the East Oakland community. First, using a mobile monitoring platform, BAAQMD will perform screening measurements of emission sources and receptors of interest to the community for additional monitoring. Second, BAAQMD will follow up with short- or medium-duration measurements to investigate questions raised by the first phase of mobile monitoring. To complement these efforts, CBE and UCB will collaborate to deploy a network low-cost particulate matter (PM) sensors at ~40 sites across the study area. A PurpleAir sensor will be placed outdoors at each site, hosted by a community member. Approximately five outdoor sensors will be paired with solar-powered batteries and Wi-Fi hotspots, to allow monitor hosting by unsheltered community members that are most often exposed to ambient air pollution but may not have reliable power and internet access—both of which are required for operation of the PurpleAir sensors. Another five sensors will be sited at elementary and high schools in East Oakland. At roughly half of the outdoor sites, a second Purple Air sensor will be placed indoors and the community member host will receive a DIY air filtration unit. These community members will be trained to monitor and respond to air quality emergencies, such as wildfire smoke events.

As part of the monitoring and educational outreach planned, UCB will work in collaboration with CBE to deploy Purple Air sensors in the East Oakland community. Participating community members will receive PurpleAir monitors, air filtration resources, and training to build ownership in monitoring and responding to severe air quality events. Since CBE has limited office space and resources available to manage the procurement, storage, and preparation of all of the required equipment and materials, UCB will act as facilitator and organizer by purchasing:

- 70 PurpleAir (PA-II-SD) PM sensors; CBE will own all of these devices and will maintain possession of them after the study period
- Materials to construct 30 air filtration systems
- Materials to build 5 solar-powered battery and Wi-Fi hotspot systems, including a 12-month cellular data plan for each hotspot

Additionally, UCB will lend up to 20 PurpleAir sensors as needed to the project, which will be returned to UCB at the end of the study. CBE will develop outreach materials, host community gatherings, identify sensor locations, and recruit hosts, with support from UCB and BAAQMD. In partnership and coordination with CBE, UCB will:

- Help to construct the DIY air filtration units and solar-powered battery setups to run the PurpleAir sensors and Wi-Fi hotspots without plug-in power
- Lead a series of training sessions so that hosts can learn more about what PurpleAir monitors are, what they measure, how they work, and how DIY air filtration units can be best used
- Support the deployment of PurpleAir monitors and DIY air filters, including installation of devices and showing hosts how to access and interpret their own data
- Help train community member hosts on how to respond to severe air quality periods like wildfire smoke events, including notifying neighbors and how to best use DIY filters to reduce the impact of outdoor air pollution that may penetrate indoors
- Evaluate the impact of DIY air filtration units on indoor air quality during extreme pollution events like wildfires using the paired indoor/outdoor sensors
- Review data and hold quarterly sessions with site hosts to answer questions, show data, and discuss results

Expected Project Timeline: October 2022–September 2025

- Q4 2022: Work plan development
- Q1 2023: Develop outreach material and begin community engagement
- Q2 2023: Begin host recruitment and site identification
- Q3 2023: Hold community outreach and training meetings; deploy PurpleAir monitors and DIY filter units with community member hosts
- Q4 2023–Q3 2024: Maintain PurpleAir monitor network and hold quarterly data sessions with community member hosts
- Q4 2024–Q3 2025: Transition to community-led network and data analysis; project wrap up and final reporting



University of California, Berkeley
Proposed Budget

Ver.10.2 3/2022

Principal Investigator:	Chelsea Preble	Begin Date:	10/1/22
Title:	BAAQMD Subaward	End Date:	9/30/25
Year 1:	10/1/22 through 9/30/23	Budget Years:	3
Research Type:	On Campus Rate to 7/1/21-6/30/22 and until further notice		
Sponsor Type:	Modified Total Direct Costs	Federal	

		No. of	Monthly Rate	Percent of	Subtotal
SALARIES		Mos.		Time	
Faculty	Chelsea Preble	1	9,793	100%	9,793
	Blank	0	0	100%	0
	Blank	0	0	100%	0
	Blank	0	0	100%	0
	Total				9,793
Graduate Student Researchers					
Total = 0					
Civil and Environmental Engineering				* Reference	
Academic	October - December 2022-2023	0	4,924	0%	0
Academic	January - May 2022-2023	0	4,924	0%	0
Summer	June - August 2022-2023	0	4,924	3.63%	0
Academic	September 2022-2023	0	4,924	0%	0
Academic	None 2022-2023	0	4,924	0%	0
Total = 0		0		Total	0
Earth & Planetary Science					
Academic	October - December 2022-2023	3	5,936	48%	0
Academic	January - May 2022-2023	5	5,936	48%	0
Summer	June - August 2022-2023	3	5,936	100%	0
Academic	September 2022-2023	1	5,936	48%	0
Academic	None 2022-2023	0	5,936	0%	0
		12		Total	0
Other Personnel					GSR Total 0
Total = Select Researcher Type*:					
0	Associate Research Engineer, III	12	11,717	100%	0
0	Assistant Research Engineer, IV	12	10,417	100%	0
0	Assistant Specialist, I	12	4,575	100%	0
1	Student Assistant (Hourly)	Hrs. Est= 2088	18	25%	9,396
0	Programmer/Analyst (or other career staff)	12	0	100%	0
0	Other Career Staff	12	0	25%	0
0	Postdoctoral Scholar Employee	See Reference 12	0	100%	0
*See Reference for Rates				Total	9,396
SALARY SUBTOTAL					19,189
BENEFITS			Rate	Subtotal	
Professors			35.9%	3,516	
Total= 0					
Resident GSRs = 0					
Nonresident GSRs = 0					
		Semester 1	Semester 2		
Graduate Student Health Insurance		3166	3166	\$6,332	0
Resident GSR Tuition		7363	7363	\$14,726	0
Nonresident GSR Tuition		7363	7363	\$14,726	0
Nonresident Supplemental Tuition		7853	7853	\$15,706	0
Students				2.4%	226
Postdoctoral Scholar Employee				16.4%	0
Other Academic (Asso.Res./Specialist, etc.)				35.9%	0
Programmer/Analyst (or other career staff)				45.9%	0
BENEFITS SUBTOTAL					3,742
PERSONNEL SUBTOTAL					22,931

Principal Investigator:		Chelsea Preble			
Title:		BAAQMD Subaward			
Year 1:	10/1/22	through	9/30/23		
TRAVEL	Domestic Travel for technical meetings:				
		Trips:	1	Days:	1
					Subtotal
			PI Travelers:	1.0	2,000
			Student Travelers:	0.0	0
Airfare	\$2,000		Taxi:	\$0	2,000
Meals	\$0		Conf. Reg. PI	\$0	
Hotel	\$0		Conf. Reg. Student	\$0	
Foreign Travel:					
		Trips:	0	Days:	5
Airfare	\$1,000		PI Travelers:	1.0	0
Per Diem	\$265		Student Travelers:	1.0	0
Taxi	\$75		Conf. Reg. PI	\$650	0
			Conf. Reg. Student	\$550	
TRAVEL SUBTOTAL					2,000
EQUIPMENT	(only individual items ≥ 5K) Amount				
1					
2					
3					
EQUIPMENT SUBTOTAL					0
SUPPLIES & EXPENSES		#	Amount	Unit	
	Participant Support/Stipend (O/H exempt)	0	250.00	1	0
	Computer Costs				
	Laptops	0	3,185		0
	Annual Server Maintenance	0	2,700		0
	Annual Desktop Maintenance	0	900		0
	CIF Monthly Fee	0	95	12	0
	ICF Fee	0	5	12	0
	Storage Infrastructure Fee	0	10	12	0
	Microlab Access Fee	0	85	12	0
	Microlab Usage :				
	Lab Fees (per account monthly max.)	0	1,400	12	0
	Equipment Fee (per account monthly max.)	0	1,400	12	0
	GAEL Insurance		\$	0	0
	UCRP Assessment		\$	0	0
	Other		\$		0
	Consultants		\$		0
** Budget	Expendable Research Supplies	\$	21	12	25,500
Optimizer	(software,computer supplies, non-inventorial equipment, reproduction, shipping, mailing, etc.)				
SUPPLIES & EXPENSES SUBTOTAL					25,500
SUBAWARDS	Subaward's overhead is on first 25K only.Edit MTDC to subtract 25K from each institution's \$.				
SUBAWARD SUBTOTAL					0
TOTAL DIRECT COSTS					50,431
MODIFIED TOTAL DIRECT	Base			50,431	
MTDC Base Indirect Rate	37,824	60.50%	3/4	22,883	30,511 IDC Total
	12,608	60.50%	1/4	7,628	
Total Cost Base Indirect	37,824	60.50%	3/4	22,883	30,511 IDC Total
	12,608	60.50%	1/4	7,628	
TOTAL INDIRECT COSTS					30,511
TOTAL COST FOR YEAR 1					80,942
***For example: From F109 subtract (F103-25000) etc., from the formula if there are subawards.					



University of California, Berkeley
Proposed Budget

Ver.10.2 3/2022

Principal Investigator:	Chelsea Preble		
Title:	BAAQMD Subaward		
Year 2:	10/1/23	through	9/30/24
Sponsor Type:	Modified Total Direct Costs Federal		

SALARIES		No. of	Monthly Rate	Percent of	Subtotal	
Faculty		Mos.		Time		
	Chelsea Preble	1	10,185	100%	10,185	
	Blank	0	0	100%	0	
	Blank	0	0	100%	0	
	Blank	0	0	100%	0	
				Total	10,185	
Graduate Student Researchers						
Total =	0					
	Civil and Environmental Engineering					
Academic	October - December	2023-2024	0	5,121	0%	0
Academic	January - May	2023-2024	0	5,121	0%	0
Summer	June - August	2023-2024	3	5,121	0%	0
Academic	September	2023-2024	0	5,121	0%	0
Academic	None	2023-2024	0	5,121	0%	0
			3	Total	0	
Total =	0					
	Earth & Planetary Science					
Academic	October - December	2023-2024	3	6,173	48%	0
Academic	January - May	2023-2024	5	6,173	48%	0
Summer	June - August	2023-2024	3	6,173	100%	0
Academic	September	2023-2024	1	6,173	48%	0
Academic	None	2023-2024	0	6,173	0%	0
			12	Total	0	
				GSR Total	0	
Other Personnel						
Total =	Select Researcher Type*:					
0	Associate Research Engineer, III	12	12,185	100%	0	
0	Assistant Research Engineer, IV	12	10,833	100%	0	
0	Assistant Specialist, I	12	4,758	100%	0	
1	Student Assistant (Hourly)	Hrs. Est= 2088	18	25%	9,396	
0	Programmer/Analyst (or other career staff)	12	0	100%	0	
0	Other Career Staff	12	0	25%	0	
0	Postdoctoral Scholar Employee	12	0	100%	0	
				Total	9,396	
*See Reference for Rates						

SALARY SUBTOTAL	19,581
------------------------	---------------

		Rate	Subtotal
BENEFITS			
Professors		35.9%	3,656
Total=		0	
Resident GSRs =		0	
Nonresident GSRs =		0	
	Semester 1	Semester 2	
Graduate Student Health Insurance	3292	3292	\$6,585
Resident GSR Tuition	7657	7657	\$15,315
Nonresident GSR Tuition	7657	7657	\$15,315
Nonresident Supplemental Tuition	8167	8167	\$16,334
Students			2.4%
Postdoctoral Scholar Employee			16.4%
Other Academic (Asso.Res./Specialist, etc.)			35.9%
Programmer/Analyst (or other career staff)			45.9%

BENEFITS SUBTOTAL	3,882
--------------------------	--------------

PERSONNEL SUBTOTAL	23,463
---------------------------	---------------

Principal Investigator:		Chelsea Preble			
Title:		BAAQMD Subaward			
Year 2:		10/1/23	through	9/30/24	
TRAVEL Domestic Travel for technical meetings:					
		Trips:	1	Days:	1
					Subtotal
				PI Travelers:	2,000
				Student Travelers:	0
Airfare	\$2,000			Taxi:	2,000
Meals				Conf. Reg. PI	
Hotel	\$0			Conf. Reg. Student	
Foreign Travel:					
		Trips:	0	Days:	5
Airfare	\$1,000			PI Travelers:	0
Per Diem	\$265			Student Travelers:	0
Taxi	\$75			Conf. Reg. PI	0
				Conf. Reg. Student	\$650
					\$550
TRAVEL SUBTOTAL					2,000
EQUIPMENT (only individual items ≥ 5K) Amount					
1					
2				0	
3				0	
EQUIPMENT SUBTOTAL					0
SUPPLIES & EXPENSES # Amount Unit Total					
	GAEL Insurance		\$	0	0
	UCRP Assessment		\$	0	0
	Other		\$		0
	Consultants		\$		0
** Budget	Expendable Research Supplies	\$	21	12	2,000
Optimizer	(software, computer supplies, non-inventorial equipment, reproduction, shipping, mailing, etc.)				
SUPPLIES & EXPENSES SUBTOTAL					2,000
SUBAWARDS					
SUBAWARD SUBTOTAL					0
TOTAL DIRECT COSTS					27,463
MODIFIED TOTAL DIRECT Base 27,463					
MTDC Base Indirect Rate 20,597 60.50% 3/4 12,461 16,615 MTDC					
6,866 60.50% 1/4 4,154					
Total Cost Base Indirect 20,597 60.50% 3/4 12,461 16,615 Total					
6,866 60.50% 1/4 4,154					
TOTAL INDIRECT COSTS					16,615
TOTAL COST FOR YEAR 2					44,078



University of California, Berkeley
Proposed Budget

Ver.10.2 3/2022

Principal Investigator:	Chelsea Preble		
Title:	BAAQMD Subaward		
Year 3:	10/1/24	through	9/30/25
Sponsor Type:	Modified Total Direct Costs	Federal	

		No. of	Monthly Rate	Percent of	Subtotal
SALARIES		Mos.		Time	
Faculty	Chelsea Preble	1	10,592	100%	10,592
	Blank	0	0	100%	0
	Blank	0	0	100%	0
	Blank	0	0	100%	0
	Total				10,592

Graduate Student Researchers

Total =	0					
	Civil and Environmental Engineering					
Academic	October - December	2024-2025	0	5,326	0%	0
Academic	January - May	2024-2025	0	5,326	0%	0
Summer	June - August	2024-2025	3	5,326	0%	0
Academic	September	2024-2025	0	5,326	0%	0
Academic	None	2024-2025	0	5,326	0%	0
			3		Total	0
Total =	0					
	Earth & Planetary Science					
Academic	October - December	2024-2025	3	6,420	48%	0
Academic	January - May	2024-2025	5	6,420	48%	0
Summer	June - August	2024-2025	3	6,420	100%	0
Academic	September	2024-2025	1	6,420	48%	0
Academic	None	2024-2025	0	6,420	0%	0
			12		Total	0
onnel					GSR Total	0

Other Personnel

Total =	Select Researcher Type*:				
0	Associate Research Engineer, III	12	12,673	100%	0
0	Assistant Research Engineer, IV	12	11,267	100%	0
0	Assistant Specialist, I	12	4,948	100%	0
1	Student Assistant (Hourly)	Hrs. Est= 0	18	0%	0
0	Programmer/Analyst (or other career staff)	12	0	100%	0
0	Other Career Staff	12	0	25%	0
0	Postdoctoral Scholar Employee	12	0	100%	0
				Total	0

SALARY SUBTOTAL 10,592

BENEFITS		Rate		Subtotal	
Professors				35.9%	3,804
	Total=		0		
	Resident GSRs =		0		
	Nonresident GSRs =		0		
		Semester 1	Semester 2		
Graduate Student Health Insurance		3424	3424	\$6,848	0
Resident GSR Tuition		7964	7964	\$15,928	0
Nonresident GSR Tuition		7964	7964	\$15,928	0
Nonresident Supplemental Tuition		8494	8494	\$16,988	0
Students				2.4%	0
Postdoctoral Scholar Employee				16.4%	0
Other Academic (Asso.Res./Specialist, etc.)				35.9%	0

Programmer/Analyst (or other career staff)	45.9%	0
BENEFITS SUBTOTAL		3,804
PERSONNEL SUBTOTAL		14,396

Principal Investigator:		Chelsea Preble			
Title:		BAAQMD Subaward			
Year 3:	10/1/24	through	9/30/25		
TRAVEL	Domestic Travel for technical meetings:				
		Trips:	1	Days:	1
					Subtotal
				PI Travelers:	1.0
				Student Travelers:	0.0
				Taxi:	\$0
					1,000
Airfare	\$1,000			Conf. Reg. PI	\$0
Meals	\$0			Conf. Reg. Student	\$0
Hotel	\$0				
Foreign Travel:					
		Trips:	0	Days:	5
Airfare	\$1,000			PI Travelers:	1.0
Per Diem	\$265			Student Travelers:	1.0
Taxi	\$75			Conf. Reg. PI	\$650
				Conf. Reg. Student	\$550
TRAVEL SUBTOTAL					1,000
EQUIPMENT	(only individual items ≥ 5K)		Amount		
1					
2			0		
3			0		
EQUIPMENT SUBTOTAL					0
SUPPLIES & EXPENSES	#	Amount	Unit		
GAEL Insurance		\$	0		0
UCRP Assessment		\$	0		0
Other		\$			0
Consultants		\$			0
** Budget	Expendable Research Supplies	\$	0	12	500
Optimizer	(software, computer supplies, non-inventorial equipment, reproduction, shipping, mailing, etc.)				
SUPPLIES & EXPENSES SUBTOTAL					500
SUBAWARDS					
SUBAWARD SUBTOTAL					0
TOTAL DIRECT COSTS					15,896
MODIFIED TOTAL DIRECT	Base				15,896
MTDC Base Indirect Rate	11,922	60.50%	3/4	7,213	9,617 MTDC
	3,974	60.50%	1/4	2,404	
Total Cost Base Indirect	11,922	60.50%	3/4	7,213	9,617 Total
	3,974	60.50%	1/4	2,404	
TOTAL INDIRECT COSTS					9,617
TOTAL COST FOR YEAR 3					25,513



University of California, Berkeley
Proposed Budget

Summary Budget

Ver.10.2 3/2022

Principal Investigator:	Chelsea Preble	Begin Date:	10/1/22
Title:	BAAQMD Subaward	End Date:	9/30/25

SALARIES	Year:	One	Two	Three	Four	Five	TOTAL
Faculty		9,793	10,185	10,592	0	0	30,570
Grad. Student Researchers		0	0	0	0	0	0
Other Personnel		9,396	9,396	0	0	0	18,792
Salary Subtotal		19,189	19,581	10,592	0	0	49,362
BENEFITS							
Benefits Subtotal		3,742	3,882	3,804	0	0	11,428
Personnel Subtotal		22,931	23,463	14,396	0	0	60,790
TRAVEL							
Domestic		2,000	2,000	1,000	0	0	5,000
Foreign		0	0	0	0	0	0
Travel Subtotal		2,000	2,000	1,000	0	0	5,000
EQUIPMENT							
SUPPLIES							
Equipment Subtotal		0	0	0	0	0	0
Laptops		0	0	0	0	0	0
Network access & Maintenance		0	0	0	0	0	0
Participant Support		0	0	0	0	0	0
Microlab		0	0	0	0	0	0
GAEL Insurance		0	0	0	0	0	0
UCRP Assessment		0	0	0	0	0	0
Other		0	0	0	0	0	0
Consultants		0	0	0	0	0	0
Expendable Research Supplies		25,500	2,000	500	0	0	28,000
Supply/Expense Subtotal		25,500	2,000	500	0	0	28,000
SUBAWARDS							
Subaward Subtotal		0	0	0	0	0	0
Total Direct Costs		50,431	27,463	15,896	0	0	93,790
Modified Total Direct Costs		50,431	27,463	15,896	0	0	93,790
Indirect Costs		30,511	16,615	9,617	0	0	56,743
TOTAL COST FOR YEAR		80,942	44,078	25,513	0	0	150,533

BUDGET JUSTIFICATION
University of California Berkeley PI: Chelsea Preble

PERSONNEL: Salary \$49,362

Principal Investigator:

Chelsea Preble, Assistant Research Engineer: \$30,571 salary is requested to support 1 calendar month per year for the duration of entire project. Dr. Preble will be responsible for leading the project, supervising the work of the student assistant, and coordinating the collaboration with the lead institution and other institutions. Fringe benefits for Chelsea Preble are calculated at the Academic rate of 35.9%

Other Personnel:

TBD Student Assistant: \$18,792 salary is requested to support student assistant work 25% (10 hours per week) for year 1 and year 2. Under direction of the Principal Investigator, the student assistant will assist with the preparation and deployment of sensors and air filtration units, engaging with the community during recruitment and training events, and acquiring and analyzing data.

FRINGE BENEFITS: \$11,428

The University of California, Berkeley Composite Fringe Benefit Rates (CFBR) have been reviewed and federally approved by the Department of Health and Human Services (DHHS) on 09/29/20 for use by all fund sources for FY21. Rates beyond June 30, 2021 are estimates and are provided for planning purposes only. Future CFBR rates are subject to review and approval by DHHS on an annual or biannual basis. Fringe benefits are assessed as a percentage of the respective employee's salary. The benefit rates are as follows:

	Approved	Projections for Planning Purposes →			
CBR Rate Group	FY21	FY22	FY23	FY24	FY25
Academic	35.9%	35.9%	35.9%	35.9%	35.9%
Staff	45.9%	45.9%	45.9%	45.9%	45.9%
Limited (include Postdocs)	16.4%	16.4%	16.4%	16.4%	16.4%
Employee with No Benefit Eligibility	5.5%	5.5%	5.5%	5.5%	5.5%
Students	2.4%	2.4%	2.4%	2.4%	2.4%

For more information, please see:

<http://www.spo.berkeley.edu/policy/benefits/benefits.html>

The University of California provides full remission of tuition, fees, and graduate student health insurance to all graduate students who are employed on-campus 45% time or greater during the academic year. The rate for in-state remission is \$10,362 per semester, which is escalated annually in the budget at a rate of 4% per year. The rate for out-of-state remission is \$18,215 per semester, which is escalated annually in the budget at a rate of 4% per year. Additional information regarding the fee remission program can be found at: <http://grad.berkeley.edu/financial/fec-remissions/>.

TRAVEL: \$5,000

Funds in amount of \$5,000 are requested to support the field measurements and community outreach, as well as for the PI to attend academic conferences and workshops.

Other Direct Costs: \$28,000

Expendable Research Supplies: \$28,000

\$28,000 is requested in the duration of entire project for purchasing sensors, materials for air filtration units and solar-powered battery systems, Wi-Fi hotspots and cellular data plans, miscellaneous consumables required to construct and deploy these sampling systems (tape, zip-ties, mounting hardware, etc.), and a laptop for data acquisition and analysis. Details of expected costs for these material and equipment follow:

Item (Quantity and Expected Cost Per Unit)	Expected Total Pre-Tax	Expected Total w/ Tax
70 PurpleAir PA-II-SD monitors @ \$279 / monitor	\$19,530	\$21,288
5 solar-powered battery systems @ \$100 / system	\$500	\$545
5 WiFi hotspots @ \$50 / hotspot	\$250	\$273
5 12-month cellular data plans @ \$25 / plan / mo * 12 months	\$1,500	\$1635
90 20" x 20" MERV13 filters @ \$16 / filter	\$1,440	\$1570
30 20" box fans @ \$18 / fan	\$540	\$589
Misc. consumables for PurpleAir installation, battery system construction, and filter unit assembly	\$700	\$700
Laptop	\$1400	\$1400
Total	\$25,860	\$28,000

Indirect (F&A) Costs: \$56,743

Indirect costs are based on University negotiated rates with the cognizant federal authority and are applied at a rate of 60.5% for the entire project period using the modified total direct cost (MTDC) formula as per the approved rate agreement dated June 25, 2020. Modified total direct costs exclude equipment, capital expenditures, charges for patient care, student tuition remission, participant support costs, rental costs of off-site facilities, scholarships, and fellowships as well as the portion of each subgrant and subcontract in excess of \$25,000. For more information, please see <https://spo.berkeley.edu/policy/fa.html>. The rates after July 1, 2020 are provisional and subject to change based upon our updated federally negotiated indirect cost rate agreement.

Total Costs: \$150,533

EDUCATION & RELEVANT RESEARCH EXPERIENCE

- Postdoctoral Scholar** 2017–2021
University of California, Berkeley; Department of Civil and Environmental Engineering
- Developed community-based networks of low-cost black carbon sensors: 100×100 Study in West Oakland, Richmond Air Monitoring Network, and Stanislaus Community Air Monitoring Project
 - Determined impacts of control technologies on in-use heavy-duty diesel truck emissions and evaluated changes in fleet-average emissions over time
 - Characterized greenhouse gas, criteria air pollutant, and odorous pollutant emissions from the industrial-scale dry anaerobic digestion and composting of organic municipal solid waste
 - Evaluated transport and fate of emitted respiratory aerosol to better understand viral transmission in the indoor environment
 - Conducted on-road tracer experiments to assess regulatory air quality dispersion models
 - As part of these studies, mentored undergraduate and graduate students and collaborated with community groups, researchers from other institutions, and project managers
- University of California, Berkeley** 2017
Ph.D., Civil and Environmental Engineering
Dissertation: Effects of Advanced After-Treatment Control Technologies on Heavy-Duty Diesel Truck Emissions
- University of California, Berkeley** 2013
M.S. Civil and Environmental Engineering
- University of California, Berkeley** 2010
B.S. Environmental Sciences
Thesis: A Comparison of Pollutant Emissions from a Traditional and an Improved Cookstove

SELECT HONORS, AWARDS, & SERVICE

- Technical Advisory Group for Richmond-San Pablo Community Air Monitoring Plan, 2020–Present
- ACS Editors' Choice (Preble et al., *ES&T* 2019), 2019
- National Science Foundation Graduate Research Fellow, 2012–2017
- Outstanding Graduate Student Instructor Award (CE218A: Air Quality Engineering), 2017
- American Geophysical Union (AGU) Outstanding Student Paper Award, 2014
- American Association of Aerosol Research (AAAR) Student Poster Award, 2013

SELECT PUBLICATIONS

1. Singer, BC; Zhao, H; Preble, CV; Delp, WW; Pantelic, J; Sohn, MD; Kirchstetter, TW. (2021) Measured influence of overhead HVAC on exposure to airborne contaminants from simulated speaking in a meeting and a classroom. *Indoor Air*, 00, 1–18. DOI: 10.1111/ina.12917.
2. Schlaerth, H; Ko, J; Sugrue, RA; Preble, CV; Ban-Weiss, GA. (2021) Determining black carbon emissions and activity from in-use harbor craft in Southern California. *Atmos. Environ.*, 256, 118382. DOI: 10.1016/j.atmosenv.2021.118382.
3. Sugrue, RA; Preble, CV; Kirchstetter, TW (2020) Comparing the use of high- to low-cost black carbon and carbon dioxide sensors for characterizing on-road diesel truck emissions. *Sensors*, 20, 6714. DOI: 10.3390/s20236714.

4. Preble, CV; Chen, SS; Hotchi, T; Sohn, MD; Maddalena, RL; Russell, ML; Brown, NJ; Scown, CD; Kirchstetter, TW (2020) Air pollutant emission rates for dry anaerobic digestion and composting of organic municipal solid waste. *Envir. Sci. Tech.*, 54, 16097–16107. DOI: 10.1021/acs.est.0c03953.
5. Preble, CV; Harley, RA; Kirchstetter, TW (2019) Control technology-driven changes to in-use heavy-duty diesel truck emissions of nitrogenous species and related environmental impacts. *Envir. Sci. Tech.*, 53, 14568–14576. DOI: 10.1021/acs.est.9b04763.
6. Caubel, JJ; Cados, TE; Preble, CV; Kirchstetter, TW. (2019) A distributed network of 100 black carbon sensors for 100 days of air quality monitoring in West Oakland, California. *Envir. Sci. Tech.*, 53, 7564–7573. DOI: 10.1021/acs.est.9b00282.
7. Preble, CV; Cados, TE; Harley, RA; Kirchstetter, TW (2018) In-use performance and durability of particle filters on heavy-duty diesel trucks. *Envir. Sci. Tech.*, 52, 11913–11921. DOI: 10.1021/acs.est.8b02977.
8. Kirchstetter, TW; Preble, CV; Hadley, OL; Bond, TC; Apte, JS. (2017) Large reductions in urban black carbon concentrations in the United States between 1965 and 2000. *Atmos. Environ.*, 151, 17–23. DOI: 10.1016/j.atmosenv.2016.11.001.
9. Preble, CV; Dallmann, TR; Kreisberg, NM; Hering, SV; Harley, RA; Kirchstetter, TW. (2015) Effects of particle filters and selective catalytic reduction on heavy-duty diesel drayage truck emissions at the Port of Oakland. *Envir. Sci. Tech.*, 49, 8864–8871. DOI: 10.1021/acs.est.5b01117.
10. Preble, CV; Hadley, OL; Gadgil, A; Kirchstetter, TW. (2014) Emissions and climate-relevant optical properties of pollutants emitted from a three-stone fire and the Berkeley-Darfur stove tested under laboratory conditions. *Envir. Sci. Tech.*, 48, 6484–6491. DOI: 10.1021/es5002715.

SELECT CONFERENCE PRESENTATIONS & INVITED TALKS

1. Preble, CV; Sugrue, RA; Kirchstetter, TW. Heavy-duty diesel truck emissions: Comparing in-use measurements compared to exhaust standards and mobile source models. American Geophysical Union (AGU), Annual Fall Meeting. New Orleans, LA & Virtual Everywhere. December 17, 2021.
2. Preble, CV. Shusterman, A. *Air pollution in high definition: Building low-cost sensor networks and community partnerships*. California Section of the American Chemical Society, Women Chemists Committee Meeting; Virtual. September 18, 2021. (Invited Talk)
3. Preble, CV; Caubel, J; Cados, TE; Sugrue, RA; Butler, J; Kirchstetter, TW. Using low-cost sensors to characterize neighborhood-level air pollution. International Society of Exposure Science (ISES), Annual Meeting. Virtual. September 21, 2020.
4. Preble, CV. Shusterman, A. *Clearing the air: Empowering communities to improve air quality*. Science at Cal, Midday Science Café; Virtual. June 25, 2020. (Invited Talk)
5. Preble, CV; Beveridge, B; Gordon, M; Uennatornwarangoon, F; Harris, M; Holstius, D; Kirchstetter, TW. The West Oakland Community Air Quality Study: Successful partnerships to advance science and advocacy. American Geophysical Union (AGU), Annual Fall Meeting. San Francisco, CA. December 13, 2019.
6. Preble, CV. *A community network of 100 black carbon sensors*. Valley Air Pollution Health Effects Research Symposium (VAPHER II); Fish Camp, CA. November 8, 2019. (Invited Talk)
7. Preble, CV. *Characterizing on-road heavy-duty diesel truck emissions*. Valley Air Pollution Health Effects Research Symposium (VAPHER II); Fish Camp, CA. November 7, 2019. (Invited Talk)
8. Preble, CV. *New Sensor Network Reveals Telltale Patterns in Neighborhood Air Quality*. Live, in-studio interview with KTVU News; Oakland, CA. July 24, 2019.
9. Preble, CV; Caubel, J; Cados, T; Apte, J; Kirchstetter, TW. A dense sensor network to characterize community exposure to black carbon. Joint Annual Meeting of the International Society of Exposure Science and the International Society for Environmental Epidemiology (ISES-ISEE 2018). Ottawa, Ontario, Canada. August 28, 2018.
10. Preble, CV; Cados, T; Harley, RA; Kirchstetter, TW. (Invited) Impacts of aging emission control systems on in-use heavy-duty diesel truck emission rates. American Geophysical Union (AGU), Annual Fall Meeting. New Orleans, LA. December 14, 2017.
11. Preble, CV; Cados, T; Harley, RA; Kirchstetter, TW. Effects of particle filters and selective catalytic reduction on in-use heavy-duty diesel truck emissions. American Association of Aerosol Research (AAAR), 35th Annual Conference. Portland, OR. October 19, 2016.